MAY, MDCCCLVI.

THE ZOOLOGIST:

A

POPULAR MONTHLY MAGAZINE

OF

NATURAL HISTORY

AND

JOURNAL FOR RECORDING FACTS & ANECDOTES

RELATING TO

QUADRUPEDS, BIRDS, REPTILES, FISHES, ANNELIDES,
INSECTS, WORMS, ZOOPHYTES, &c.

THEIR HABITS, FOOD, RETREATS, OCCASIONAL APPEARANCE,
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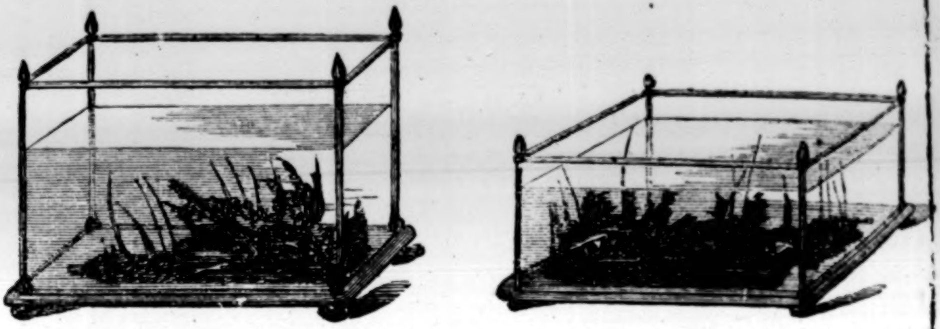

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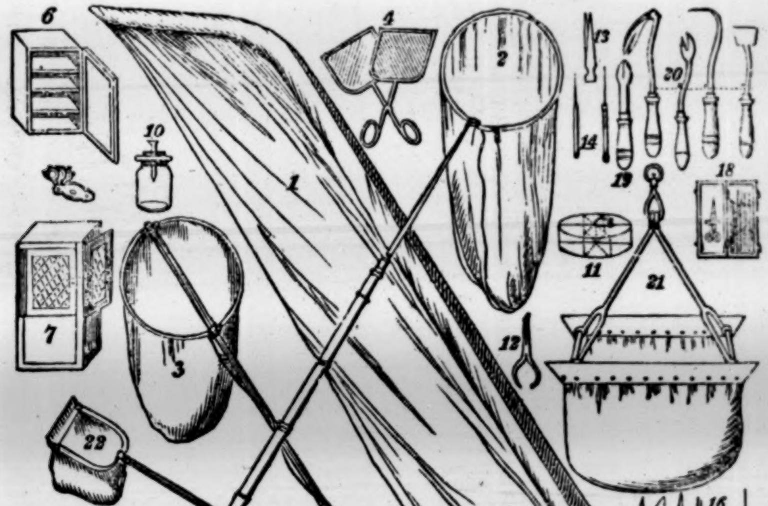

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Adaptation of the Colouring of Moths to Autumnal Tints.—I am not aware whether any entomologist has ever been struck by the (as it appears to me) singular adaptation and similarity of colouring, in the autumnal and winter Lepidoptera, to the prevailing tints of Nature during those seasons. Counting from the middle of September, when the leaves begin to turn, till the end of February, we find, I think, among the Bombyces, Noctuæ and Geometræ, about fifty-eight species on the wing. Now, in autumn the hue of Nature is golden; she passes through all the intermediate stages from pale yellow to a rich deep brown, while in winter she assumes a gray or silvery garb. Taking those fifty-eight species, we find, I think, in their prevailing colours a striking and remarkable similarity to those which Nature assumes at the time of their appearance in the winged state: three species, viz., A. cassinea, T. Cratægi and A. lunosa, I consider doubtful. Seven militate against my theory, viz., P. Populi, C. exoleta and vetusta, C. aprilina, M. Oxyacanthæ, A. pyramidea and P. meticulosa. The remaining forty-eight are decidedly in my favour, as any one may perceive who will take the trouble of casting his eyes over the following list. Autumn tints: yellow to rich brown. Autumn species: O. antiqua and gonostigma, P. plumigera, A. litura and pistacina, C. xerampelina, D. rubiginea, E. fulvago and trapetzina, the genus Glæa, G. flavago, O. Lota and macilenta, S. Libatrix, S. Satellitia, S. xanthographa, the whole of the Xanthiæ, X. croceago, X. petrificata, semibrunnea and rhizolitha (perhaps this belongs more properly to the winter), C. elinguaria, E. erosaria, alniaria, fuscantaria and tiliaria, E. apiciaria and parallellaria, L. defoliaria and aurantiaria, and H. pennaria. Winter tints: gray or silvery. Winter insects: H. leucophæaria, progemmaria and rupicapraria, the genus Cheimatobia and A. æscularia: in all forty-eight. I think that an ttentive examination of the above will show that I have made out a fair case; and though some of your readers may be disposed to add two or three to the autumnal species, yet even so the vast majority will be found to accord with my view, and it certainly strikes me as a very interesting fact, showing the hand of an Almighty and Allwise Being to be visible in this, as in all the other works of creation. I take this opportunity of asking whether any of the entomological readers of the 'Zoologist' can inform me in whose collection can be found authentic specimens of Valeria oleagina. I have looked carefully over the innumerable records of the captures of rare species contained in the thirteen volumes of the 'Zoologist,' without having found any collector who appears to have been fortunate enough to take this species. It may have been recorded there, but if so it has escaped my notice. I should be much obliged for information on this point.—*J. Greene; Brandeston, Woodbridge, Suffolk, March*, 1856.

Lampronia prælatella.—It would appear that this larva has been sought for unsuccessfully by some. It is to be found only in very damp places. The first spot I met with it was on the leaves of the wild strawberry, growing close by the foot of the middle water-fall at Aberfeldy, where everything was saturated with spray and the mosses and ferns rejoiced in the wet atmosphere of a tropical Orchid-house: half-way up the bank it had disappeared. The next spot I found it in great abundance on the strawberry, the Geum and the Spiræa, was where the shelving side of the wood was moist enough to suit Saxifraga aizoides, which was growing there abundantly.—*G. Wailes; March*, 1856.

Nomada borealis.—The notices in the 'Zoologist' and 'Entomologist's Annual' would lead to the inference that the discovery of this species in this vicinity was recent, and therefore it may as well be stated that I met with it here about the year 1830. It is one of our most abundant Nomadæ. That my specimens remained, like

BRITISH MUSEUM

Mr. Newman's, unknown, is hardly to be wondered at, considering the little attention then paid to those minute differences now found to be so essential, and the known variableness of the species of this genus. Zetterstedt appears to have captured it during his Lapland tour in 1821, and, when separating the species from its allies, in a most admirable description (written previously to 1832, though not published till 1840), adds, "Difficultas species hujus generis inter se valde affines diagnoscendi veniam dabit prolixæ descriptioni."—*Id.*

Nomada xanthosticta.—For the last three seasons I have taken this species in company with Andrena analis, of which it is in all probability the parasite. When Mr. Smith's invaluable work on our bees made its appearance, I suspected it to be some variety of N. Roberjeotiana, as the square cream-coloured spot on the fifth segment of the abdomen of the female was particularly alluded to, and on referring to Panzer I found that distinction well characterized. I was the more inclined to think so, as that peculiarity is neither noticed by Smith nor Kirby when describing xanthosticta, though it is equally well developed in both species. On forwarding a pair to Mr. Smith he pronounced it to be this insect, but he did not know the male, in which the abdomen is—with the exception of the darker markings—self-coloured, all the yellow or cream-coloured spots being replaced by rufous.—*Id.*

Fenusa pumila.—Every Micro-Lepidopterist must have noticed the large irregular blotches with which the foliage of the bramble is covered in September and October. My friend Mr. Stainton pronounced them to be the mines of some Coleopterous larva. I determined, therefore, to watch their transformations, and accordingly found that they quitted the mine and penetrated to the bottom of the bottle, in which I had placed a layer of damp sand: here they formed a semi-transparent cocoon (or rather in this case *cell*, as the side next the glass was flat, so that I could see the enclosed larvæ and pupæ), coated externally with grains of sand, very similar to that of many of the Tenthredinidæ. The larvæ remained unchanged for several months, and in July the perfect insects appeared. Neither Klug, Hartig, Le Pelletier nor Brullé notice its transformations, nor can I find that they have been mentioned hitherto in any work, though Mr. Westwood seems to have met with a similar larva mining raspberry leaves. —*Id.*

Occurrence of Chærocampa Celerio near Brighton.—Through the kindness of Mr Mitten, of Hurstpierpoint, about seven miles from here, I have added to my cabinet a specimen of this Sphinx, taken on a shutter in that village, in September, 1852. It was brought to Mr. Mitten alive, and has been in his possession until now. Mr. Mitten has likewise added to my collection Acronycta Alni, bred by him in 1853, from a larva found in the previous autumn feeding on Spanish chestnut; and a female of Endromis versicolor, taken by him in April, 1852.—*John N. Winter; 28, Montpellier Road, Brighton, March 28, 1856.*

Note on Cynips Lignicola and Description of its Parasite (Callimome flavipes).—I have just seen the Address delivered at the Anniversary Meeting of the Entomological Society, by Mr. Newman, containing a notice of the oak-galls so abundant in this neighbourhood, which I have no doubt will ultimately be turned to some good account for the manufacture of ink. The galls in question are stated to have been brought into notice by Mr. Rich, at the November meeting of the Entomological Society. Now I believe this is incorrect: I was the first to take particular notice of them. I sent some of the galls to Mr. Westwood as far back as 1848 or 1849, to ask the name of the Cynips which caused these excrescences,—I sent to him through one of the gardening periodicals,—and received from him the name of Cynips Quercus-terminalis. This was stated in a letter I wrote to Mr. Stainton some months ago, which was read at one of your meetings, and caused a rather sharp discussion: Mr. Westwood was there, but took no part in it; he no doubt considered that the name he had given was the correct one, but in this he was in error, as the gall now appears to be the Cynips Lignicola of Hartig: had it been new, or should a specific difference between our insect and Lignicola be hereafter detected, I would suggest the name of Cynips Quercus-gemmæ, as the parent insect deposits its eggs in the buds themselves, and the galls are produced at the expense of the buds. I do not see cause for such alarm as one would be led to suppose, through reading an article in the 'Gardener's Chronicle' some short time since. It is true the insect is very injurious to the young trees in particular: in the two large nurseries in Exeter the young trees are sadly distorted, and they cannot make head-way against the enemy, but once turn the galls into use and they will disappear much faster than they have been produced. I before stated, in the letter read by Mr. Stainton, that it is rare to see the galls above ten feet from the ground, but the nearer the ground the thicker the galls, and, on the little twigs lying on and just above the surface of the ground, nearly every bud has been metamorphosed into a gall: as you ascend upwards they gradually diminish in number, until the line may be drawn at ten feet, above which only a few stragglers can be found. The winter before this last the tom-tits (*Paridæ*) had found out the secret of what was in these galls, for they were never at a loss for a meal: when the ground was covered with snow I have seen numbers of the common blueheaded titmouse (*Parus cæruleus*) working away at the galls, in search of the fine fat larvæ of this Cynips; and this winter the titmice appear to have been even more destructive to the larvæ, for now in a short walk you may find hundreds, nay thousands, of galls that have been picked to pieces to get at the insect within. Should these galls be turned to account for the manufacture of ink, being so near the ground they could be easily gathered by children, so that the cost would be very trifling. It is said, by the writer in the 'Gardener's Chronicle,' that the galls diminish the crop of acorns: now I cannot believe this, because, as I said before, it is uncommon to find them on the large trees, and it is well known that it is only the large—I may call them mature—trees that produce acorns, so that the injury done to them cannot be great. As regards the species of this Cynips, it certainly is not the C. Quercus-folii, *Linn.*; though the figure of the galls and the perfect insect, given by J. Ræmur in the 'Genera Insectorum, Linnæi et Fabricii,' agree pretty well, the description does not agree at all with our insect. I bred some of our species in 1848, the first year that I came into Devonshire; and in 1849 I bred the parasite of the Cynips, which I forwarded to Mr. Smith, at the British Museum: that gentleman very kindly showed them to Mr. Walker, who pronounced them new. It is a splendid species of Callimome which I shall call

CALLIMOME FLAVIPES.

Description of female. Head and thorax and base of abdominal segments finely rugoso-punctate; base of the antennæ in front and the legs pale yellow; tips of the tarsi dusky; the rest of the antennæ blackish brown, as is also the sheath of the ovipositor; base of the wings pale yellow; wings splendidly iridescent; head, thorax and abdomen beneath of the most magnificent shining green; the basal and two next segments of the abdomen above very highly polished, and reflecting a steel-blue in certain lights; mouth pale yellow; eyes brown. Length 3 lines, of ovipositor 3 lines, making the entire length 6 lines; expanse of wings 5 lines. This is the most magnificently coloured British insect I am acquainted with: the genus Chrysis is very beautiful, but the splendid green of this insect by far surpasses it.—*E. Parfitt; 4, Weirfield Place, St. Leonard's, Exeter, April* 7, 1856.

What is Ilybius angustior?—Whoever undertakes to untie this knot is certainly a bold man. The Rev. Mr. Clark has very kindly attempted a revision of the nomenclature of our water-beetles, and the results have been made public, first in the 'Zoologist' (Zool. 4846, 5005, 5048), and, secondly, in a separate list. Now having long been puzzled as to the meaning of the names guttiger and angustior, I was truly glad to have the opportunity of examining some carefully-named Colymbetes which Mr. Clark had lately presented to Mr. Douglas, expecting that my "entomological difficulty" would at once be removed; but it was not so: from the said specimens I immediately learned that Ilybius guttiger of Clark was Ilybius obscurus of London collections. Shortly afterwards I saw Mr. Stevens's rich collection, recently revised by Mr. Clark, and there the same change of names occurred. I then wrote to Mr. Clark, stating my difficulty, and that gentleman, with his usual prompt courtesy, replied by sending a series of what he really wished should be understood by the names "guttiger" and "angustior," and behold the whole of them were of *one* species, and that *the* species we take at Woking. It is a remarkably uniform species; no perceptible difference exists in sculpture, form or colour, but there is a difference in size, and Mr. Clark's guttiger, as published, represents the larger examples, his angustior the smaller examples, which any day's fishing at Woking may produce: every intermediate gradation of size will be found in the same day's work. Are all the Woking examples guttiger, for so we used to call it? And if guttiger, then what is Ilybius angustior? To reverse the question, suppose them all angustior, then what has become of guttiger?—*Edward Newman.*

Whom shall we follow? another Necessity.—With the appearance of Mr. Stainton's 'Manual of Butterflies and Moths' we are introduced to a new nomenclature, and I need scarcely point out to any of my brethren how very tantalizing it is, just after they have arranged and rearranged their collections, to find that another candidate offers himself for election. There seems to be a sad want of unity amongst us, —the more noticeable, perhaps, because we are so small a body,—such a continual shifting and changing of names, that to all appearance we shall never arrive at anything definite; and I think that perhaps it would not be out of place if the leading members of the Entomological Society were to call a meeting and consider the matter dispassionately, whether the arrangement by the late Mr. J. F. Stephens, as now standing in the British Museum, should be adopted; whether that of Mr. Doubleday, whom I believe all of us have of late unanimously followed; or whether that of Mr. Stainton, now appearing, is to be *the* list. Perhaps these remarks will call up some other kindred spirits to take an active part in such an important matter, and I at present forbear from making any further comment until I see how this idea is received.—*John Scott; South Stockton, March* 31, 1856.

A few Words about Advertisements: another Thing hoped for.—Whilst condemning the passing off of undoubted foreign insects as *bonâ fide* English ones, it might be well to say a word or two as to the facilities placed in the way for assisting such as have a *penchant* after this fashion in obtaining them, and also for showing how such insects might get ranked amongst legitimate members without any intention on the part of those who had them from the sellers to pass them off as British. These facilities are not a few, and an attempt at the stopping up of one or two of these little holes, which let in much light, is the object of the present paper. Let us take, for example, the wrapper of almost any of the parts of the 'Zoologist,' and we will find that there we have Lathonias, Daplidices, &c., advertised as always on hand, as well as "such a collection of rarities as is not to be seen elsewhere," and no clew whatever is given as to whether they are natives. Now first, passing by those who really are up to the proper construction to be put on this mode of doing business, let us suppose the 'Zoologist' falling into the hands of a simple workman whose taste inclines this way: he at once perceives how, at a trifling cost, his little stock might be increased and enriched, and so, without giving the matter further thought, he immediately writes off for an example or two of these scarcer species: then by-and-bye this man dies,—there has been no record kept of where he obtained these insects,—his little collection by chance falls into the hands of some one who really knows their value, he having naturally concluded that they could never have fallen to the lot of their first possessor through any other means than his own net. Here there was no design to "work the oracle," and does it not show how curiously rarities *may* get introduced amongst us? and how, no doubt, many have been gulled? I must admit that getting one or two novelties in this way would cost me a pang or two to abandon them, when there was no one to disprove the notion that the original possessor had not captured them, and I would be as willing to make every allowance for the tenacity of any of my brethren under like circumstances. Then for those whose ambition does not soar higher than the committing such deeds,

> "——— that a brother should
> Be so perfidious!"

see of what valuable assistance these advertisements are to him: he counts over and calculates on his exchanges, and how nicely he will *do* the unsuspecting at about three-pence a head, exclusive of repinning and resetting. *Resetting* has another meaning in Scotch law; and years may pass before such a game is detected, or, if it for a moment glanced across the memory of any one,—first thoughts are purest,—he would not allow himself to think that such an one could be but honest. This article has grown longer than I intended, and so, without quoting any more illustrations, which might be easily done, and without in any way meaning offence to the worthy editor of the 'Zoologist,' would it be consistent to ask him to banish such notices from the wrapper? or the present insertors might be induced to state which insects are foreign and which are British, and not leave us to imagine "whichever we like, we pay our money and we have our choice."—*Id.*

Terra Incognita.—There exists among British entomologists a great partiality for established localities, which, though perhaps commendable, does very little to increase our knowledge of the distribution of insects or the species inhabiting our little island. The collector knows the product of a particular locality, and cannot prevail upon himself to visit a new district where the result may be uncertain and unsatisfactory, yet if by chance a rich locality is discovered he is not slow to avail himself of it. An excuse can be offered for the entomologist whose occupation will only allow of a holiday at rare intervals, for then the inducement to visit a spot where his perseverance is likely to be rewarded is considerable; but for the entomologist whose time is his own none can be urged. It is for him to seek the secluded nooks and corners of Britain, where an insect-hunter is yet an unknown visitor; it is for him to extend and enrich our native lists: possibly he may meet with disappointment, but by far the most probable surmise is that he will be well rewarded for his trouble. Thanks to the assiduous labours of a few practical entomologists, our knowledge has of late years been greatly increased, and perhaps at no other period has so much attention been accorded to the study, but still much remains to be done. It is impossible to form an idea of the number of species yet remaining undiscovered. It is well known that many species are very local, and it may reasonably be supposed that there are many such in existence entirely unknown. Scotland but a few years back was "terra incognita," but what a rich field has there been opened! rare insects have occurred in profusion, and it is no presumption to imagine that other localities may prove equally rich. Wales and Ireland both assert their claims to a careful investigation, but still in "Old England" there remains much untouched ground, which is not open in so great a degree to the objection of distance as either of the former are. Among the Tineina and Tortricina a rich harvest may be expected: these families, not being so easily attracted as the Noctuidæ, may have remained local and unknown for ages. Doubtless many well-known and explored localities may still produce new species, but such localities, being principally in the vicinity of London, might be left to those collectors who can only escape from toil one day in the week. The quicker we arrive at a complete knowledge of the Entomology of Britain the better, for in these days of railroads and building none can say what species may not be exterminated which eyes of man have never gazed upon. These remarks are most applicable to the neighbourhood of large towns, which, by the rapid extension of their suburbs, must eventually cause the destruction of many species. The labours of such collectors as Weaver, Harding, Bouchard, &c., have demonstrated the result of perseverance in new localities; and, in conclusion, I would only add that the enterprising entomologist who would wish to extend the list of native species must overcome his partiality for old localities, and visit "terra incognita."—*C. Miller; 17, Silurian Terrace, Broke Road, Dalston, April* 4, 1856.

What is Indigenous?—One says, born in a country; another, born of native parents; another, living in a country for several generations; and if we turn to Johnson's Dictionary, that repository of etymological wisdom, we find "Originally produced or born in a country." All this is very perplexing, but when we look at the actual state of affairs our difficulties are increased tenfold. Thus to take the inhabitants of Great Britain:—but first a word as to the extent of this country. There are certain little bits of land, lying off the French coast, which are so happy as to acknowledge the sovereignty of our gracious Queen: now are these a part of the Continent, or of our island? our botanical friends say they belong to us, but Entomologists scout the idea. "Who 's to decide when doctors disagree?" And now as to the Fauna and Flora of Great Britain: the quadrupeds have all been known for years, and a new one would have a hard struggle to get into the list; and thus there is more than one species of rat, in and about our docks, which have lived there for generations without any prospect of being raised to the rank of indigenous: an ornithologist, on the other hand, considers every bird to be English which has ever been shot on English ground, and very many of those on our list have never been known to breed here. Again, in botanical works we constantly find such expressions as these, "Escaped from cultivation," "Probably imported," &c., which remind one forcibly of Defoe's description of the true-born Englishman: all importations up to a certain date claiming a proud superiority over all those which happened to be a few years later, the date itself being no fixture, but moveable at the discretion or indiscretion of the author. In Entomology, in addition to the above, a new difficulty besets us, owing to the magic power of the word indigenous in raising the money-value of an insect: a large number of specimens, having no pretensions to the title, have been sold as natives to those who were soft enough to buy them, till at last a degree of suspicion has arisen on the subject which quite overruns all reasonable bounds. Thus it is not sufficient that an insect be caught on English ground, or even that the larva be found and the perfect insect bred; but this perfect insect must come into the hands of one of the magnates of the entomological world, and even then its title is precarious, and often exposes its owner to ill-will and backbiting. That some degree of doubt necessarily attends the adoption of a novelty,—that the observations of those accustomed to observe are far more trustworthy than those of other men, and that men feel more confidence in the evidence of one they know than of a stranger, no one will deny,—but this is surely going too far; and while collectors are so eager to fill up their collections, and to that end are willing to give such fabulous prices for rarities, there seems to be no chance of any abatement of the evil.—*Thomas Boyd ;* 17, *Clapton Square, April* 3, 1856.

PROCEEDINGS OF SOCIETIES.

LINNEAN SOCIETY.

March 4, 1856.—THOMAS BELL, Esq., President, in the chair.

Dipterous Larvæ voided by Human Beings.

Mr. Newman read some observations on larvæ of Diptera voided by human beings. Through the kindness of Dr. Gull he was enabled to exhibit specimens lately obtained from a female child under the care of Mr. Henry Ewens, a medical practitioner residing at Long Sutton: the child had suffered for two or three weeks from epileptic fits, which became worse and more frequent; her countenance became vacant, and her memory much impaired: previously she had been sharp and intelligent. Both Mr. Ewens and Dr. England, of Wisbeach, who was subsequently called in, prescribed purgatives and the sulphate of zinc. The child got worse, and became almost idiotic, losing entirely the faculty of speech. Finally she voided a great number of the larvæ exhibited; Mr. Ewens administered turpentine; still larger quantities were passed, the child recovered, and is now perfectly well. Mr. Newman exhibited two specimens mounted in fluid for the microscope, and, for the sake of comparison, two others similarly mounted, which Mr. Norman had obtained from a decayed pineapple. He then cited thirty-nine previously-recorded instances which had been noticed by medical men, particularly alluding to a case described by the Rev. Leonard Jenyns, in which the discharge had been enormous and had continued for months, and another which had continued for years: he thought the larvæ found by Mr. Norman showed the probability of the ova or recently-hatched larvæ having been swallowed with fruit, but he could not account for the long period which they appeared to pass in the human body otherwise than by imagining a series of generations, which, as in the case of Aphides, never attained the imago state. He concluded by expressing his total distrust of those recorded instances of similar larvæ having been passed with urine, for, although the passage of such creatures from the mouth to the intestines was perfectly intelligible, there was clearly no similar mode by which they could reach the bladder.

Mr. Curtis expressed an opinion that the subject was one of the highest interest, and one which he had investigated.

Dr. Vinen admitted the interest and importance of the enquiry, but thought it possible that in many of the instances, perhaps in all of them, there had been a want of that excessive care, that rigid exclusion of all sources of error, which was necessary before the scientific man could receive facts that appeared so anomalous: he then went on to describe a case which had occurred within his own knowledge, in which similar larvæ had occurred not only once, but repeatedly, and this phenomenon he clearly traced to a cause that removed from it all that was abnormal or anomalous.

Sepia biserialis in Cornwall.

The Secretary read a note from Mr. Couch, recording the occurrence of Sepia biserialis in Cornwall.

March 18, 1856.—WILLIAM YARRELL, Esq., Vice-President, in the chair.

Influence of Sexual Organs on External Characters.

Mr. Yarrell read a paper "On the Influence of the Sexual Organs in modifying External Characters."

This paper referred principally to the three species of British deer, noticing the effect produced on the horns by the occurrence of disease, or by the various modes of mutilation practised on males and the appearance of a horn on females occasionally, as the operation of a known physiological law. The effects observed on both sexes of our common fowls, whether from original malformation, subsequent disease or artificial obliteration of the sexual organs, were described: also the changes observed in the plumage of both sexes of our ducks, the males of most of the species quitting the females as soon as incubation commences; and the cause of the summer seasonal alteration which then takes place in their plumage, to be afterwards entirely obliterated by the regular autumnal moult. Insects and Crustacea were also referred to, and instances pointed out where the sexual organs being double, and one of both sorts sometimes occurring in the same individual, each longitudinal half of that individual was developed under the exclusive influence of the sexual organ on its own side. Various drawings were exhibited in illustration.

Election of a Fellow.

Henry Adams, Esq., was balloted for and elected a Fellow of the Society.

April 1, 1856.—Thomas Bell, Esq., President, in the chair.

Election of Fellows.

James Alexander Brewer, Esq., and Dr. Thomas Hawkes Tanner were balloted for and elected Fellows of the Society.

Entomological Society.

March 3, 1856.—W. Wilson Saunders, Esq., President, in the chair.

Donations.

The following donations were announced, and thanks ordered to be given to the donors:—'Journal of the Royal Agricultural Society of England,' Vol. xvi. Part 2; by the Society. 'Proceedings of the Zoological Society of London,' Parts 18 to 22, being for the years 1850 to 1853 and part of 1854; 'Reports of the Council and Auditors of the Zoological Society of London,' for the years 1852 to 1855; by the Society. 'Proceedings of the Royal Society,' Nos. 17 and 18; by the Society. 'Revue et Magasin de Zoologie,' 1855, No. 12, and 1856, No. 1; by the Editor, M. Guérin-Méneville. 'The Athenæum' for February; by the Editor. 'The Literary Gazette' for February; by the Editor. 'Journal of the Society of Arts' for February; by the Society. 'Insecta Saundersiana,' Diptera, Part V.; presented by W. W. Saunders, Esq. 'The Zoologist' for March; by the Editor. 'Entomologische Zeitung,' Nos. 1 and 2, January and February, 1856; by the Entomological Society of Stettin. 'A Manual of British Butterflies and Moths,' by H. T. Stainton, No. 1; by the Author.

Exhibitions.

Mr. Stevens exhibited a specimen of Epischnia diversalis, a reputed British species, taken in October, 1855, by Mr. Mitten, "flying in a thin wood near Hurstpierpoint, Sussex."

Mr. Stevens also exhibited a few very remarkable insects sent from Borneo by Mr. Wallace. Mr. White took occasion to make some remarks upon these insects, and urged the members to pay more attention to exotic Entomology.

The President exhibited a new Longicorn beetle from N. India, in which were combined several anomalous characters, rendering its relationship very doubtful.

The President also exhibited an amphipod crustacean, from a well at Wandsworth. Mr. Westwood identified it as Gammarus subterraneus, *Leach*, belonging to the blind genus Niphargus, *Schiödte*. Mr. Lubbock remarked that he had seen a similar example from a well near Bromley, which unfortunately was not preserved. He took this opportunity to mention that he would be glad to receive fresh-water Entomostraca from any part of the world.

Mr. Stainton exhibited a Lepidopterous larva, probably of an Ephestia, said to have been vomited by a gentleman.

Mr. Hudson exhibited a Dorcus parallelipipedus and a living larva of the same species, dug out of an old ash tree at Coombe Hurst, Croydon.

The Rev. W. H. Hawker sent for exhibition a singularly pale variety of Arctia Caja, bred at Horndean.

Mr. Douglas exhibited living larvæ, probably of Ocnerostoma piniariella, feeding within the foliage of the Scotch fir.

Mr. Walker exhibited a Necrophorus Vespillo and a cockchaffer, dug up last month.

Mr. Wollaston exhibited some of the Coleoptera captured by him last summer, at Madeira.

Acari and "Fogging" of Daguerreotypes.

Mr. Tapping exhibited a drawing of an Acarus, of which many dead examples were found by Mr. Fedarb, of Dover, beneath the glass of a Daguerreotype ten years old; and as this picture was affected by what is technically termed "fogging," it had been thought there might be some connection between Acari and this obscuration of Daguerreotype pictures, a subject which had recently excited much attention.

Mr. White said this Acarus was very like, and probably identical with, Cheyletus eruditus, the common paste mite; that its presence was due to paste having been used in mounting the picture; and that the destruction of the Daguerreotype was in no way referrible to the Acari.

It appeared, however, from the reading of a long correspondence between Mr. Fedarb and Mr. Tapping, that the picture was mounted in a tin tray, and that the plate and glass were so tightly pressed together that the edge of a pen-knife could not be inserted between them, that the whole was in a morocco case with silk lining, and there was no paste, glue or cement used in the mounting.

Destruction of growing Corn by Dipterous Larvæ.

Mr. Westwood said the Society had received from Mr. Botting, of Poynings, Hurstpierpoint, Sussex, some larvæ, accompanied by a letter stating that they existed in the fields in that neighbourhood in vast numbers, destroying the growing corn to a great extent, and enquiring how they might be exterminated. The larvæ appeared to be those of a Tipula in a young state, and they would consequently continue to feed for some months, so that there was little chance of any side shoots being left: but he was unwilling to advise that the crop should be merely ploughed up, for as the larvæ were so numerous they would not be much thinned by birds, and a second sowing would have but a poor chance of succeeding. He had recently been consulted respecting some corn crops destroyed by the larvæ of a Muscideous fly, probably Oscinis vastator, and had advised his correspondent to have the ground turned up and burnt, and he would recommend a similar course in the present instance.

Read the following note by Mr. Newman:—

On the Parturition of Dorthesia Characias.

"'The smallest contribution thankfully received.' So says every true lover of insect economy: it matters not a straw to him that some one says the subject has been exhausted years and years ago; he still keeps on prying into Nature's secrets, poking his nose into holes and corners, noting with his own eyes and jotting down in his own manner those little domestic scenes which are sure to reveal themselves to every one who is master of that most simple, most commonplace, but most valuable accomplishment 'how to observe.' Our Secretary gave me, one day last June, a lady specimen of Dorthesia Characias: she was evidently in that interesting state in which it is said 'all ladies wish to be who love their lords.' She was confined in a pill-box, without provender, and so was eventually starved to death. Dorthesia Characias—the lady, I know nothing of the gentleman of that name which has been obligingly supplied by Mr. Walker—looks for all the world like a little lump of the very purest and snowyest wedding-cake sugar, cast in a mould that Bernini himself might have designed: the moulds of Dorthesiæ are always elegant, but always deliciously incomprehensible; always cut in open defiance of those little check-strings and chains which entomologists have manufactured as a means of restraining the vagaries of Nature or of fettering her to their systems: not only is there no prothorax or mesothorax or metathorax, but there is no thorax at all,—nothing but the little lump of immaculate frosted sugar aforesaid, out of which grow two black antennæ and six black legs; and yet all is perfect symmetry, the neatest workmanship that can be imagined: one would think that Nature, in her simplicity, had never heard of Leon Dufour or Audouin, De Haan or Strauss-Durckheim, Orismology or Entomology, Comparative or Transcendental Anatomy. What the frosted-sugar-like surface really is I cannot presume to say, but it is thus arranged: first, there is a series of short lamellations or foliations, which commence close behind the head and reach to the middle of the back; and these, considered as a whole, constitute a very respectable little larva, not much unlike the larva of a glowworm when two or three days old: close at the end of this series of scales is the anal aperture; and, as the series itself is only half as long as the insect, it follows that this aperture is exactly in the middle of the back: on each side of the first series of plates are four other plates, not touching each other, but placed at regular distances; these are small, short and rounded, in fact almost semicircular: beyond these again, on each side, are ten longer plates, symmetrically arranged; these are soldered together with exquisite exactness, their sides curved, their ends rounded, and each of their connecting sutures having a slightly altered angle, so that, although the first suture is placed transversely to the mesial line of the body, the last is longitudinal, and therefore parallel to the mesial line. These various scales or plates constitute a sculptured oval shield of the most elegant design and finish; and, out of respect to entomological usage, I would at once call it the thorax, but then the rest of the body must be the abdomen, and thus the anal aperture, or more properly the external opening of the oviduct, would be placed in the thorax, a situation indeed assigned to it by the illustrious Newport in the case of Stylops, but otherwise unknown throughout the insect world. Well! from beneath this shield, which we may compare to the body of a lady's dress, emerges an ample skirt, having fourteen plates, lamellations or folds, long, longitudinal and parallel: this skirt is about as long as the body, and is entirely posterior to the aforesaid opening of the oviduct. The under side of the insect is not folded or lamellated, but is smooth, tumid, and gradually sloped off towards the end, just like a ship's bottom: it is perfectly undivided, exhibiting not the slightest indication of abdominal segmentation.

"Now what I am going to narrate may or may not be the economy of the genus, or even of the species; it was the economy of this individual female: the lady may have been crossed in love, like the oyster of which the same sad liability was discovered by William Shakspere; again, she may have remained permanently and pertinaciously a spinster, like Diana, or like the entomologically-familiar Aphis-mother: in fact one may speculate *ad infinitum* on causes,—I have only to deal with results. Certain it is that parturition took place through the aperture in the middle of the back: out of this the young ones sallied one after another, and ran about over their mother's body, just as I have seen rabbits issue from their burrow and course one another over the frost-hardened surface of the snow: they looked exactly like little Acari, and, contrasted with their very quiet, sedate, and almost lethargic mother, were eminently 'fast young men' scampering over the body of their parent, clustering about her head and performing all manner of gymnastic exercises on her antennæ: indeed, greatly to the credit of such restless beings, it must be allowed that, by all kinds of fondling, they seemed determined to exhibit the most ardent filial affection; but this highly demonstrative exhibition was not apparently returned by any maternal *storgé*, for nothing could have been more stolid or apathetic than the demeanour of the mother under all this fondling. However, the scene lasted but a short time: mother and children were starved to death, and the latter were placed under the microscope. It only remains to say a few words descriptive of the young, and first as to size and proportions. Measured longitudinally and transversely I found the body was ·024 inch, so that it was nearly a circular disk, presenting, however, a number of elevations, depressions and irregularities, which possibly resulted from drying: the colour was pitchy red, but attached to the dermal envelope, in various places, and without any semblance of regularity, were a number of minute flattened bodies, perfectly white, and having the appearance of little flakes of snow: these are so numerous as to give the little creatures quite a dusty appearance: the legs are six; their attachment approximate; their length ·035 of an inch, or equal to a diameter and a half of the body: they consist of the four ordinary parts; a well-developed coxa, a femur, tibia and tarsus, so equal in length that there was no discrepancy measurable by the micrometer; the tarsus is exarticulate or composed of a single piece, and armed with a single, terminal, slightly curved, and apparently immovable claw. This mononycous character of the foot does not appear the very best for prehension, yet the prehensile power of the legs is beyond all question, for the little ones crawled about their mother's body with the most perfect *nonchalance*, never tumbling, even by chance, from the dizzy elevation of her antennæ. Each of them had a head, which, however, was a fixture, having no power of motion, but being closely anchylosed to the trunk, and its presence only to be detected when viewed from above, by a line of demarcation; below, on the contrary, it bore a large, straight, and really formidable beak, which Savigny would doubtless have resolved into the constituent parts of an ordinary insect-mouth, but which I could make nothing more of than a beak: its very connexion with the head seemed problematical, and yet I take *that* for granted; but as a matter of *appearance*, mind I am very particular not to say a matter of *fact*, this suctorial instrument seemed to come out of the stomach; indeed, supposing its office that of a pump, for pumping out the sap, one might aptly call it a 'stomach-pump.' The head, moreover, bore — and these were very evident personal property, whatever the pump might be—two very conspicuous seven-jointed antennæ, which gradually, almost imperceptibly, decreased in size from the base to the apex: the fourth, fifth and sixth joints were each marked by a scarcely perceptible ring or indentation at half their length, thus indicating the subcutical existence of three more joints, making ten in all, the number which the mother actually possessed."

Mr. Westwood remarked that the female of the Dorthesia, so accurately described by Mr. Newman, was figured by Burmeister in his 'Handbuch.' With regard to the snow-white covering of the insect, he had no doubt it was a modification of the waxy secretion common to many of the Homoptera.

Mr. Waterhouse observed that the fine powder on the Coleopterous genus Lixus had also been regarded as a waxy secretion.

Mr. Curtis communicated the following extracts from a letter addressed to him by Dr. Maclean, of Colchester:—

Economy of Gonepteryx Rhamni.

"Gonepteryx Rhamni assumes its perfect state in the end of July or beginning of August. I have bred numbers of them. In a fortnight or month, according to the state of the weather, they become very fat, containing within them also a large bag of honey, and in a short time afterwards but very few are to be seen. For several seasons in succession I imprisoned some of these fat specimens, and placed them in a northern aspect in cases of wood and earthenware, in which I placed rough pieces of old decayed bark of trees, &c. Several specimens lived through the winter: they appeared to be dead during cold weather, but after being in a warm room for an hour or much less I believe, they began to crawl about and expand the wings. If fine, that is very mild, weather sets in for a few days during the winter months these insects become quite active, endeavouring to escape from their prison. Who has not occasionally seen a specimen either in November, December or January? The female places her eggs on the buds of Rhamnus Frangula, just before they begin to expand, in the spring of the year. The larva is full grown by the beginning of July, and when not feeding rests on the midrib of the leaf, which is first covered with delicate shining silk. Old worn specimens of the perfect insect may be seen occasionally as late as the end of June."

Economy of Bryophila perla.

"I discovered a larva in tolerable abundance last spring, feeding on minute lichens, on our old walls, which turned out to be that of a beautiful little moth, Bryophila perla. The economy is singular. It lives in a tent during the day, and comes out to feed at night and on wet and dull afternoons. It has a room at the back of its tent also, in which it ultimately turns to a chrysalis."

Longevity of a small Lepidopterous Larva.

"About three or four years ago I found some very minute larvæ in silken cocoons, amongst some bran and old paper, in which I kept meal-worms. One of these larvæ lived in a glass phial for three years, as nearly as I can guess, having attached its cocoon to the bottom of the phial, so that I could see the creature from without. The cocoon was composed of silk, bran and paper, and fresh bran was occasionally put into the phial."

The name of the moth produced from this larva was not mentioned.

Memoirs read.

Mr. Pascoe read some descriptions of new genera and species of Longicorn beetles from Borneo, Malacca and China.

Mr. White read a description of a new Longicorn beetle, brought from Ceram by Madame Pfeiffer.

Mr. Westwood read a description of Thaumantis Aliris, a splendid new species of Morphidæ, from Borneo.

Mr. Baly read descriptions of two species of Pseudomela, a new genus of Chrysomelidæ.—*J. W. D.*

April 7, 1856.—W. WILSON SAUNDERS, Esq., President, in the chair.

Donations.

The following donations were announced, and thanks ordered to be given to the donors:—'Entomologische Zeitung,' Nos. 3 and 4, for March and April, 1856; by the Entomological Society of Stettin. 'A Manual of British Butterflies and Moths,' by H. T. Stainton, No. 2; by the Author. 'The Entomologist's Weekly Intelligencer,' No. 1; by the Editor. 'Journal of the Proceedings of the Linnean Society,' Vol. i. No. 1; by the Society. 'Proceedings of the Royal Society,' Vol. viii. No. 19; by the Society. 'The Natural History Review,' No. IX.; by the Dublin University Zoological Association. 'The World of Insects: a Guide to its Wonders,' by J. W. Douglas; by the Author. 'The Zoologist' for April; by the Editor. 'The Journal of the Society of Arts' for March; by the Editor. 'The Literary Gazette' for March; by the Editor. 'The Athenæum' for March; by the Editor. 'Papers and Proceedings of the Royal Society of Van Diemen's Land;' 'Tasmanian Contributions to the Universal Exhibition of Industry at Paris;' by the Royal Society of Van Diemen's Land. Fifty copies of 'An Address delivered at the Anniversary Meeting of the Entomological Society of London, held on the 28th of January, 1856,' by Edward Newman, Mem. L. C. Acad. (nom. Latreille), F.L.S., Z.S., &c.; by the Author. A small box of remarkable Coleoptera, Hymenoptera, &c., from Ceylon, received from Mr. Thwaites, M.E.S.; by W. Spence, Esq.

Prize Essay for 1856.

The President announced that the Council had determined to offer a prize of £5, for an Essay on the Natural History of Gelechia terrella, and whether this common little moth was injurious to Agriculture or not. The Essay to be illustrated by figures of the insect in all its stages, and to be delivered on or before the 31st of December next.

Exhibitions.

Mr. A. F. Sheppard exhibited a specimen of Ennomos Alniaria, taken sitting on a post, near Margate, in September, 1855. This is the third specimen of this species known to have been captured in Britain.

The Nuisance of Acari.

Mr. Westwood read a note, addressed by a lady residing at Lyme Regis to Dr. John Lee, of Hartwell House, Aylesbury, and communicated by that gentleman, giving an account of the appearance in the writer's house of a vast quantity of Acari. They proceeded, in the first instance, from some Egyptian palm-leaves which were shut up in a dark closet, whence they spread through three rooms, and were seen in thousands in crevices of wood, on chairs, tables, books, paintings and cabinets of shells, so that they became a complete nuisance. Cold had no effect on them; and tobacco, turpentine, colocynth and Sir W. Burnett's disinfecting fluid had been tried as remedies, with but little effect. Sulphur and nitre had been more efficacious; but in consequence of their use the polish of the furniture and shells had been destroyed, and the colours of the paintings had been damaged.

Mr. Westwood thought the palm-leaves had probably been affected by Ptini or Anobia, whose excrement and the *débris* made by them had afforded a nidus for the Acari, in which they were for some time unmolested. He suggested as a cure the employment of corrosive sublimate in solution; but several members said that, however fatal this preparation of mercury was to insect life, it was also destructive to any metals with which it came in contact, as proved by the rotten state of the pins in insects and the wires in bird-skins which had been dressed with it, and a white film was deposited on the surface of anything to which it was applied.

The President said a case had come under his notice in which cockroaches had been destroyed in a drawing-room, under the floor of which they had taken up their quarters, by the use of chloride of lime; and he thought it possible this preparation might be of service in the case now under consideration.

Read the following note by Mr. Newman:—

On the Genus Synemon.

"There is scarcely a genus of Lepidoptera more interesting than the Australian Synemon. With the general habit and abruptly clavate antennæ of a butterfly, it has other very important characters of a moth; and it will be fresh in the recollection of our Lepidopterists that our never-to-be-forgotten and most talented Secretary, Edward Doubleday,* wrote quite an Essay to show that it was a moth and not a butterfly. Well! I have gleaned a few more grains of information about Synemon from Mr. Oxley, who constantly saw it and often took it at the diggings. It is strictly diurnal, flitting about in the hot sunshine, among the tufts of grass and low scrub, with all the restless activity of a skipper: when it settles it rests for a minute with deflexed wings, but with the fore wings spread out nearly at right angles with the body, so as to display the more gaily-coloured hind wings. At night and in cloudy weather it rests on blades of grass, with the wings erect, meeting vertically over the back. Thus, in the combination of characters, these antipodeans unconsciously annihilate the distinction between butterflies and moths, between Rhopalocera and Heterocera: the gradations from Hesperia to Synemon, from Synemon to Castnia, from Castnia to Sphinx, and so on to the normal Heterocera, are easy and natural, and seem to bridge over the gulf which formerly existed in our minds between butterflies and moths."

Specimens of two species were exhibited in illustration.

New Genera of Coleoptera.

Mr. Westwood read descriptions of two beetles especially remarkable for the lateral dilation of the head, a character of great rarity in insects. They would constitute new genera, and he described them under the names of Enotiophorus vestitus and Triplacodes Guineensis, the former from Ceylon, the latter from Guinea.

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* See Appendix, by Edward Doubleday, to Lort's Discov. Austral i. 516.

Mr. Stevens communicated the following note from Mr. H. W. Bates, Corr. M.E.S.:—

On the Sexual Distinctions in the South-American Coleopterous Genus Agra.

"Lately I captured a pair, *in copulâ*, of a species of the genus Agra, and profited by the fortunate circumstance to examine if there were any external differences between the sexes. I found several characters very strongly marked, in fact so obvious that I think it scarcely possible they have escaped the notice of entomologists to the present time. The chief distinction is the pubescence of the under surface of the body in the male. Examining afterwards other species, with this guide, I have paired satisfactorily five or six. The amount of pubescence varies according to the species: whilst in one the central parts of the metasternum and all the abdominal segments are densely clothed with a thick woolly pile, in others the metasternum and basal segment of the abdomen only has a thick short erect pubescence. The other characters are less obvious, and chiefly comparative: one is the great thickness of the femora, especially the anterior, in the male; this character, however, is marked only in part of the species: another is the relative length of the apical abdominal segment, and the shape of the notch in its posterior edge. In the male this segment is shorter than in the female; the notch is deeper and more rounded; in the female it is always shallow and angular. The last character appears in those species in which each elytron is doubly sinuate at the apex: when this is the case the sinuation is stronger in the female, the central tooth being much more prominent than in the male. In one species I have noticed the male has only a single sinuation, whilst the female is doubly sinuate-truncate at the apex of each elytron."

Society's 'Transactions.'

Part 8, completing Vol. iii. N. S. of the 'Transactions,' was on the table.—*J. W. D.*

NOTICES OF NEW BOOKS.

'*Annals and Magazine of Natural History.*' Nos. 98, 99 and 100, dated February, March and April, 1856; No. 98, *price* 5*s.*, Nos. 99 and 100, *price* 2*s.* 6*d.* each. London: Taylor and Francis, Red Lion Court, Fleet Street.

No. 98 contains the following papers:—

'Notes on the Palæozoic Bivalved Entomostraca. No. 3. Some Species of Leperditia.' By T. Rupert Jones, F.G.S.

'Further Observations on the Development of Gonidia (?) from the

Cell-contents of the Characeæ, and on the Circulation of the Mucus Substance of the Cell.' By H. J. Carter, Esq., Assistant-Surgeon H.C.S. Bombay.

'Amended Description of the Genus Scaphula of Benson, a freshwater form of the Arcacea; with Characters of a New Species from Tenasserim.' By W. H. Benson, Esq.

'Description of Tanystoma tubiferum, a Burmese form related to the Genus Anostoma of Lamarck.' By W. H. Benson, Esq.

'On Pleurodictyum problematicum.' By William King, Professor of Mineralogy and Geology in Queen's College, Galway.

'On the Mechanism of Aquatic Respiration and on the Structure of the Organs of Breathing in Invertebrate Animals.' By Thomas Williams, M.D. Lond.

'On the Marine Testacea of the Piedmontese Coast.' By J. Gwyn Jeffreys, Esq., F.R.S.

'Notes on the Review of G. R. Gray's Catalogue of the Genera and Subgenera of Birds in the December Number of the Annals.' By G. R. Gray, F.L.S., &c.

Bibliographical Notices:—'A Popular History of Palms and their Allies;' by Berthold Seemann, Ph. D. 'Museum of Economic Botany, or a Popular Guide to the Museum of the Royal Gardens of Kew;' by Sir W. J. Hooker, Director. 'A Handbook to the Marine Aquarium;' by P. H. Gosse. 'Popular Geography of Plants, or a Botanical Excursion round the World;' by E. M. C., edited by C. Daubeny, M.D., &c. 'The Flowering Plants and Ferns of Great Britain; an attempt to classify them according to their Geognostic Relations;' by J. G. Baker.

Proceedings of Learned Societies: — Zoological — Botanical of Edinburgh.

Miscellaneous:—Memorandum on the Animal of Scissurella crispata; by Lucas Barrett. Notes on the Marine Fauna of Weymouth; by William Thompson.

No. 99 contains the following papers:—

'On the House-Ant of Madeira.' By Professor O. Heer, of Zurich. Translated from the original by R. T. Lowe, M.A.

'Characters of seventeen New Forms of the Cyclostomacea from the British Provinces of Burmah, collected by W. Theobald, jun., Esq.' By W. H. Benson, Esq.

'Descriptions of three newly-discovered Species of Araneidea.' By John Blackwall, F.L.S.

'On some Species of Epilobium.' By Charles C. Babington, M.A., F.R.S., &c.

'On the Mechanism of Aquatic Respiration, and on the Structure of the Organs of Breathing in Invertebrate Animals.' By Thomas Williams, M.D. Lond.

'Notes on Permian Fossils: Palliobranchiata.' By William King, Professor of Mineralogy and Geology in Queen's University, Ireland.

'On Scissurella crispata.' By William Clark, Esq.

'Further Notice of Piedmontese Mollusca.' By J. Gwyn Jeffreys, Esq., F.R.S.

Bibliographical Notices:—'The Natural History of the Tineina;' by H. T. Stainton, assisted by Professor Zeller and J. W. Douglas. 'Sylloge Generum Specierumque Cryptogamicarum quas in variis operibus descriptas iconibusque illustratas, nunc ad diagnosim redactas, nonnullasque novas interjectas ordine systematico disposuit C. Montagne, D.M., &c.'

Proceedings of Learned Societies: — Zoological — Botanical of Edinburgh.

Miscellaneous:—On the Earliest Stages in the Development of Pelagia noctiluca; by Dr. A. Krohn. [Extracted from Muller's Archiv.] Description of a New Species of Swift.

The three spiders described by Mr. Blackwall belong to the tribe Octonoculina, and to the family Linyphiidæ: they are Neriene cornigera, discovered among moss growing under trees in a wood on the northern slope of Gallt y Rhyg, in the autumn of 1854: Neriene montana, found on Ingleborough, in Yorkshire, in September, 1855; it was received from Mr. Meade: Walckenaëra vafra, discovered under stones about Hendre House, near Llanrwst, in October, 1855. The new swift is the Cypselus galilæensis of Antinori, described in the Naumannia for 1855, and discovered by Antinori in Palestine, near the Sea of Galilee: it much resembles a previously-described South African species, the Cypselus leucorrhous of Stephens.

The contents of No. 100 are as follow:—

'On the Theory of the Fecundation of the Ovum.' By E. Claparède. [Translated from the Bibliothèque Universelle de Genève, for August, 1855, p. 284].

'On some Species of Epilobium.' By Charles C. Babington, M.A., F.R.S., &c. [Transactions of the Botanical Society of Edinburgh].

'Note on the Genus Scissurella.' By J. Gwyn Jeffreys, Esq., F.R.S.

'On the House-Ant of Madeira.' [Translated from the German of Professor O. Heer, of Zurich].

'Notes on Permian Fossils: Palliobranchiata.' By William King, Q.C., Galway.

'Remarks on the Genera Tanystoma, Nematura and Anaulus.' By W. H. Benson, Esq.

'New Researches in Vegetable Embryogeny.' By M. Tulasne. [Translated from the Comptes Rendus, November 12, 1855, p. 790].

'On the Tracheal System of Insects.' By Thomas Williams, M.D. Lond., F.L.S., &c.

Bibliographical Notice:—'Insecta Maderensia;' by T. V. Wollaston, M.A., F.L.S.

Proceedings of Learned Societies:—Bombay Branch Royal Asiatic—Zoological.

Miscellaneous:—On the Mode in which Tachinæ escape from their Pupa-cases, and from closed Situations in which they often occur; by Dr. Reissig. [Extracted from Weigmann's Archiv. xxi. p. 189]. On the apparent absence of a Nervous System in Nemoptera lusitanica; by M. Léon Dufour. [Extracted from the Comptes Rendus, December 31, 1855, p. 1204].

'*Quarterly Journal of Microscopical Science, including the Transactions of the Microscopical Society of London.*' Edited by Edwin Lankester, M.D., F.R.S., F.L.S., and George Busk, F.R.C.S.E., F.R.S., F.L.S. London: Churchill. No. XV., dated April, 1856. *Price 4s.*

The contents of No. XV. are as follow:—

'A Simple Form of Portable Microscope, with Lever Adjustment, which may be adapted to several different purposes.' By Lionel Beale, M.B., Professor of Physiology and General Morbid Anatomy in King's College, London.

'Report of the Sixteenth Annual Meeting of the Microscopical Society.'

'Further Observations on the Structure of Appendicularia flabellum (Chamisso).' By T. H. Huxley, F.R.S.

'Note on the Reproductive Organs of the Cheilostome Polyzoa.' By T. H. Huxley, F.R.S.

'On the Reproductive Organs of certain Fungi, with some Remarks on Germination.' No. II. By Frederick Currey, Esq., M.A.

'On the Similarity of Form observed in Snow Crystals, as compared with those of Camphor under certain conditions of Crystallization.' By Joseph Spencer, Esq.

'Further Observations on the Similarity of Forms observed between Snow Crystals and those of Camphor.' By James Glaisher, Esq., F.R.S.

'On on Easy Method of viewing certain of the Diatomaceæ.' By John Charles Hall, M.D., Physician to the Sheffield Public Dispensary.

'On defining the Position and measuring the Magnitude of Microscopic Objects.' By the Rev. W. Hodgson, M.A., Incumbent of Brathay.

'On the Development of the Enamel.' By John Tomes, F.R.S., Surgeon-Dentist to the Middlesex Hospital.

'Contributions to Micro-Mineralogy.' By S. Highley, F.G.S., &c.

Reviews:—'Rudiments of Pathological Histology;' by Carl Wedl, M.D., &c., translated and edited by George Busk, F.R.S. 'The Micrographic Dictionary; a Guide to the Examination and Investigation of the Structure and Nature of Microscopic Objects;' by J. W. Griffith, M.D., &c., and A. Henfrey, F.R.S., &c. 'The Microscope and its Revelations;' by William B. Carpenter, M.D., F.R.S., &c.

Notes and Correspondence:—The Proboscis of the Blow-fly; by G. Hunt. Aperture of Object-glasses; by F. H. Wenham. Application of Collodion to the production of Stage and Eye-piece Micrometers for the Microscope; by W. Hodgson. Note on Pinnularia; Anonymous. On Micrometers and Micrometry; by George Jackson. Mr. Amyot's Finder; by Thomas E. Amyot.

Proceedings of Societies:—Microscopical.

I am fortunate in being enabled, through the kindness of Mr. Busk, the talented editor of this Journal, to explain the seemingly irregular numbering of the Plates. The 'Journal' is not a Journal exclusively, but consists of three separate works, which are in the course of publication simultaneously, piecemeal, and bound together; in fact, of three stout gentlemen rolled into one. Each work requires a separate series and numbering of Plates, and there were plates belonging to each work in the number last noticed: the VX Mr. Busk believes a misprint, and thinks it should have been IX.

'*Journal of the Proceedings of the Linnean Society.*' Vol. I. No. 1, dated March 1, 1856. 8vo, 96 pp. letter-press, two Plates. *Price 3s., to Fellows gratis.* London: Longmans. 1856.

The Linnean Society has been roused, by its able, active and amiable President, from that state of *coma* under which it seemed for years to have been labouring: discussions at its meetings are now not only tolerated, but invited; papers of great interest are not only read, but listened to; and, wonder of wonders! a resolution has been passed in Council to issue a quarterly number of Proceedings.

The first number of this Journal is remarkable for the value of the papers, for the clearness with which they are arranged, and the correctness with which they are printed: it is creditable alike to the Society from which it emanates and to the literary and scientific abilities of the various contributors. It supplies a great desideratum in Science, and, if continued as begun, will supersede the necessity for any other Journal taking the same highly scientific ground. The papers are divided into zoological and botanical: the following are the titles of the zoological:—

'On the Katepo, a supposed Poisonous Spider of New Zealand.' By T. S. Ralph.

'Remarks on some Habits of Argyroneta aquatica.' By Thomas Bell, Esq.

'Catalogue of the Dipterous Insects collected at Singapore and Malacca by Mr. A. R. Wallace, with Descriptions of New Species.' By Francis Walker, Esq., F.L.S.

'Note on a supposed Species of Pelopæus.' By Edward Newman, Esq., F.L.S.

'On the Natural History of the Glowworm.' By the late George Newport, Esq., F.L.S.

'*The Natural History Review.*' Nos. IX. and X., dated January and April, 1856. *Price 2s. 6d.* each. London: Williams & Norgate.

The contents of No. IX. are as follow:—

Reviews:—'Untersuchungen ueber die Fluegel typen der Coleopteren;' von Prof. Dr. H. Burmeister. — Part I. Clavicornia.

'Glaucus, or the Wonders of the Sea-Shore;' by Charles Kingsley. 'The Natural History of the Tineina;' by H. T. Stainton. 'The Fern Allies;' by John E. Sowerby. 'Entomologist's Annual for 1856.' 'Geology, its Facts and Fictions;' by W. Elfe Taylor. 'Experiments on the Dyeing Properties of Lichens;' by W. L. Lyndsay. 'The Flowering Plants and Ferns of Great Britain;' by J. G. Baker.

'Address to the Dublin University Zoological Association.' By the President, R. Ball, LL.D., M.R.I.A., &c.

'On the Affinities of the Aphaniptera among Insects.' By A. H. Haliday, A.M., M.R.I.A.

'On some Rare Fresh-water Mollusca.' By E. Waller.

'Notes on the Larva of Octhebius punctatus and Diglossa mersa.' By A. H. Haliday, A.M., M.R.I.A.

Notices of Serials:—'The Annals and Magazine of Natural History.' 'Quarterly Journal of Microscopical Science.' 'The Zoologist.' 'Hooker's Journal of Botany, and Kew Garden Miscellany.' 'The Naturalist.' And Notices of the Serials of North America, Russia, Sweden, Germany, Switzerland, Holland, Belgium, France, Italy and Prussia.

Proceedings of Societies:—Dublin University Zoological Association.

The contents of No. X. are as follow:—

Reviews:—'Popular History of Birds;' by A. White. 'Popular British Conchology;' by G. B. Sowerby. 'Popular British Entomology;' by M. E. Catlow. 'Popular History of British Zoophytes;' by the Rev. Dr. Landsborough. 'March Winds and April Showers;' by "Acheta." 'May Flowers;' by "Acheta." 'Handbook to the Marine Aquarium;' by P. H. Gosse. 'Contributions to the Natural History of Labuan and Borneo;' by J. Motley and L. L. Dillwyn. 'Zetterstedt, Diptera Scandinaviæ. 'Stenhammar, Copromyzinæ Scandinaviæ.' 'Henrich, Das Leben in der Natur.' 'Structure of Victoria Regia;' by G. Lawson.

Miscellaneous Notices.

'Ova of Hylus.' By Dr. Lamprey.

'Larvæ infesting the Horns of Oreas Canna, &c.' By A. H. Haliday, Esq., A.M., M.R.I.A., V.P. Dublin University Zoological Association.

'Occurrence of the Uria Lacrymans in Ireland.' By A. Carte, Esq., M.B., A.M., Director of Museum R.D.S., M.R.I.A.

'Letter from Dr. Kinahan, dated Callao, August, 1855.'

'Occurrence of Rare Birds in Ireland.' By Dr. Burkitt.

'On the Veddahs of Ceylon.' By Dr. Lamprey.

'Celtic Names of the Water-Newt.' By T. O'Mahony, Esq., A.B., Treasurer Dublin University Zoological Association.

'Extracts from my Diary.' By Capt. M'Clintock, R.N.

'Report of the Council of the Dublin Natural History Society, 1855.'

Notices of the Serials of Germany, France, and Britain.

Piscivorous Propensity of the Water Campagnol.—Under this heading I see it stated that the water vole has been observed to feed on fish. Might it not have been a common gray rat, which was mistaken for a vole? The common rat is as numerous in the streams in this neighbourhood as the true water rat, for which it is often mistaken, swimming and diving equally well with that animal.—*W. S. M. D'Urban; Newport, near Exeter, February* 5, 1856.

Occurrence of the Round-headed Porpoise (Delphinus melas) *at Oldcambus.*—On Saturday, March 29th, 1856, a large marine animal came ashore among the rocks of Greenheugh, a short way to the west of St. Helen's church. This was ascertained to be a round-headed porpoise or ca'ing whale. The species frequents in great droves the coasts of Shetland and other northern islands; and as the blubber is highly valued, the animal is the source of much profit, as well as sport to the inhabitants, who with their boats environ those bodies of them that are so luckless as to venture within the deep landlocked bays, and then pursue them till they run aground. It is, however, extremely rare on the Berwickshire coast, there being no previously recorded instance of its appearance here; but a shoal of the same sort of miniature whale, in various stages of growth, was stranded on the 19th of March, 1854, at Howick Burn Foot, in Northumberland. The dimensions of the present individual (which was a male) were greater than any of those observed on that occasion. Its length was 20 feet, and its greatest girth 11 feet. The head was elevated in front, short and rounded, with a deepish transverse depression above the thick upper lip. The mouth was small, the opening being only 15 inches in length. It was armed with twenty-two sharp recurved conical teeth in each jaw, none of them exceeding three-fourths of an inch in length. The crescent-shaped blow-hole was seated in a cavity on the summit of the head, and was distant 22 inches from the top of the snout, or 2 feet 10 inches from the tip of the upper lip. The eyes were 1¾ inch in diameter, and were 1 foot 9 inches from the mouth. The two paddle-fins were long, narrow and tapering; in length 4 feet 11 inches; in breadth, at the root, 1 foot 2 inches; and their distance from the snout 2 feet 11 inches. The single subtriangular back fin was blunt at the apex, the hinder edge sinuated, projecting considerably near the middle: it was 3 feet 9 inches long and 17 inches high, and it was situated 5 feet 8 inches from the snout. The horizontally flattened tail was of a triangular form, and was divided by a blunt notch into two lobes: its breadth across was 4 feet 7 inches. The smooth unwrinkled skin was of a uniform glossy black, excepting a narrow band of drab colour along the belly, that terminated abruptly in front of the paddle-fins. The blubber was from 1 to 4, and even 6 inches thick. The flesh was very dark in colour, and resembled coarse beef. The animal was cut up on Monday, and, after the blubber had been separated, the carcase was conveyed away for manure. After one side had been stripped of its blubber, it was with difficulty turned over by the efforts of two horses, one attached to the tail, and the other to one of the paddle-fins, with four men besides to assist. Apparently it had not been long dead previous to its discovery, there being no traces of corruption. As to the cause of its death, it may be conjectured, that having got entangled among the rocks it may have been unable to effect its escape; but there are no traces of any struggle having occurred on the spot where it lay, nor did it bear any external mark of violence sufficient to account for its fate. The sea for some time previous had been calm. A much smaller animal of the same sort has also come ashore in the vicinity of Thorntonloch, in East Lothian. As our knowledge of the Cetacea that frequent our sea-coast is very limited, it is most desirable to have a minute account of all animals of this description that may from time to time fall under observation, for doubtless the varieties are much more numerous than most people are aware of. Naturalists are indebted to the late Dr. Patrick Neill for having pointed out the characters that distinguish this species from the Grampus, which it much resembles, and with which it is often confounded.—*James Hardy; Penmanshiel, by Cockburnspath, N.B., April,* 1856.

Occurrence of the Whitetailed Eagle (Falco albicilla) *in Devonshire.*—A few weeks ago I saw a fine living specimen of the whitetailed eagle, which was captured in the following curious manner:—As two men were at work felling trees, near Holsworthy, in North Devon, about the beginning of January, their attention was attracted by a loud rustling amongst some furze near them, and, turning round, they perceived the eagle lying with its wings extended on the top of a furze bush, unable to rise. They flung a hatchet at it, but, missing it, walked up to it, and each seizing the tip of a wing carried it home, and have since been exhibiting it in Exeter and other towns, and it is now I believe at Plymouth.—*W. S. M. D'Urban; Newport, near Exeter, February* 5, 1856.

Honey Buzzard breeding in Britain.—I venture to bring to the notice of Mr. A. F. Sealy what I consider to be another instance of the honey buzzard breeding in this country; and, though I have no proof positive to adduce, I think the circumstantial evidence of the case very convincing. In the summer of the year 1841, a gamekeeper, in the employ of a gentleman whose estate lay in the Shropshire side of Staffordshire, shot a large hawk on her nest, which was situated in a tree on the outskirts of an extensive wood. The man took the bird, and two eggs which he found in the nest, to his mistress, who prided herself on her ornithological knowledge; and accordingly, after consulting a very ancient copy of Bewick's 'British Birds,' she pronounced the bird to be a fine goshawk, placed the eggs in her cabinet, and forwarded the hawk to a neighbouring gentleman, who was in the habit of preserving the skins of rare birds: he was unfortunately from home at the time, and before he returned it had been thrown away by the servants. Now in size, in the colour of the irides and legs, and in the general markings of the plumage, a female honey buzzard is not unlike a goshawk, and might easily be mistaken for one by a superficial observer. On seeing the eggs some short time after they were taken, and knowing from their colour that they could not possibly be what the label asserted, I made further enquiries, and learned from the keeper that about a month after he had killed the first, he shot a second hawk, which he took to be the cock bird, and which had always remained in the vicinity of the nest: he described it as being very handsome, with a great deal of *white* about it, and added that he had never seen anything like it before or since. Sad to relate, this valuable bird, which would have been a prize to any Museum, went to ornament the back of a barn. The eggs, which are now in my possession, agree exactly with the dimensions given by Mr. Yarrell for the egg of the honey buzzard: in colour they resemble that of the kestrel; perhaps they are rather darker than most eggs of this bird, and when fresh they were much brighter than they are at present. I know of no other hawk except the peregrine falcon — and this bird does not breed inland—which produces eggs of this size and colour; and therefore, if I am wrong in calling my eggs those of the honey buzzard, will some of the readers of the 'Zoologist' suggest what they may be?—*C. Buchanan; Hales, Market Drayton, April* 12, 1856.

Early Arrival of the Willow Wren.—March 20, 1856, 1 o'clock, P. M.; wind N.W.; therm. 51°. Observed five or six chiffchaffs near Steephill, about half a mile from this place. They were flying in and out of the hedges, and occasionally into the larger trees. I had a momentary view only of a yellow wood wren. I also give, from my note-book, the dates, showing when they were first observed in former years by me; also extracts from White's 'Natural History of Selborne,' Montagu's 'Ornithological Dictionary,' and Macgillivray's 'British Birds.'

Extract from Capt. H.'s Note-book.

Ventnor, Isle of Wight:—

1852. April 4, observed first willow wren.
1853. „ 7, „ „
1854. „ 11, „ „
1855. „ 17, „ „

White.

"Willow wren or chiffchaff" "is usually first heard about the 20th March.'

Montagu.

"The wood wren appearing with us about the latter end of April." "Yellow wren comes to us early in April."

Macgillivray.

Short-winged wood wren or chiffchaff: "It arrives about the beginning of April."

It would therefore appear that, notwithstanding the severe weather that has prevailed of late, the wood wren has this season arrived unusually early.—*H. W. Hadfield; High Cliff, Ventnor, Isle of Wight, March* 20, 1856.

Note on the Early Arrival of the Sand Martin and Chiffchaff.—On the 18th of March I saw two sand martins (*Hirundo riparia*) flying over the river, one of which I shot, and found it in good condition and its mouth full of Dipterous insects. The same day the chiffchaff (*Sylvia hippolais*) was very numerous. The weather was mild and wet, being nearly the first rain after a long continuance of fine weather with cold easterly winds. This is the earliest arrival of either of these birds I have ever noticed, though last year I saw one sand martin flying about on the 23rd of March, whilst snow was falling, chiffchaffs having arrived on the 21st.—*W. S. M. D'Urban; Newport, near Exeter, April* 2, 1856.

Familiarity of the Hedgesparrow.—May 8, 1852. A pair of hedgesparrows have constructed their nest within 2½ feet of the back of a garden-chair in common use, and on which a boy once stood to water a shrub without disturbing the bird sitting on its nest, which is placed in a blackthorn, with ivy growing around it, the leaves of which form a complete canopy, sheltering it from rain and wind. The eggs slightly differ, both in size and shape. The nest measured internally 1½ inch in depth and 2½ inches in breadth, and was 4½ inches in diameter externally. On taking the nest to pieces (some weeks later) I found it composed of the following materials:—twig of elm; ditto; stalk of spinach; piece of thorn; piece of tamarisk; stalk of carnation; stalk of honeysuckle; root of ivy; piece of brier; tendril of Convolvulus; stalk of flower; ditto; ditto; piece of Virginia stock; stalk of flower; ditto; ditto; some stalks; a number of fine roots; some pieces of matting; piece of round gimp; some ivy leaves; two or three leaves of mallows; two pieces of twine; several strings; several threads; four long pieces of cotton twist: externally, first a thick coating of common green moss, mixed with a little wool, hair, and small roots and leaves; next a thick mass of short hair, mixed wirh wool, worsted, rabbits' fur, human hair, and that of cow or ox, and a small feather or two: the whole matted together with fibrous roots, grass, hair, and threads of worsted and cotton, and lined with a moderately thick coating of horse hair, and that of a dog or cat.—*H. W. Hadfield; High Cliff, Ventnor, Isle of Wight, April* 10, 1856.

Colour of the Beak of the Hawfinch.—Mr. Drane states (Zool. 5059) that the bill of the hawfinch changes colour when the bird is fed upon hemp seed: this is an error. The food has nothing to do with it; it is simply the regular seasonal change. In the autumn and winter the bill, in both sexes, is always flesh-coloured; in March it begins to change, and by the early part of April is of a deep leaden blue colour, and continues so during the breeding season. The common sparrow is a familiar instance of this change in the colour of the bill, which is horn-coloured in winter and jet-black in summer. The hawfinch is not migratory in this country: it used to breed in great numbers in our forest, but has become comparatively rare within the last three or four years. Like many other birds which are very wild in a state of nature, it becomes very familiar when brought up from the nest.—*Henry Doubleday; Epping, April* 8, 1856.

Note on the Hoopoe.—The hoopoe is placed by Macgillivray in the family of Certhianæ (why or wherefore does not clearly appear). He also describes them as feeding on beetles "which they first killed, and then beat them into a *ball*, which they threw into the air and caught *lengthwise*." He likewise errs in saying "The form of its tarsi and claws would lead us to suppose it to be a climbing or creeping bird." Again, "Its very short tarsi are obviously not well adapted for walking, &c." Although a great admirer of Mr. Macgillivray's works (which I have generally found very correct), I beg to assert that the hoopoe can not only walk, but walk well; and as seen on the ground, when feeding, is one of the most elegant-looking birds that can be conceived, erecting its crest when disturbed or alarmed. During three years that I passed at Trichinopoly and in the neighbourhood (where they were very abundant), I never remarked one either climbing or creeping up a tree, and do not think it possible it could have escaped my notice had they done so; but when disturbed they would fly into the trees, but were by no means wild. On one of my voyages from India, when about 500 miles from the western coast of Africa, several birds flew on board,—amongst the rest a hoopoe. The wind was off the land, and came surcharged with fine yellow sand. Hoopoes have been frequently seen in the Undercliff, and might possibly breed here if allowed to do so, but they no sooner make their appearance than they are shot or scared away. The first I ever heard of was shot by my father, in an orchard at Bonchurch, about the year 1814, and presented by him to Mr. Bullock: it was subsequently transferred to the British Museum.—*H. W. Hadfield; High Cliff, Ventnor, Isle of Wight, April* 10, 1856.

Observations on the Genus Testacellus, and Description of a New Species, Testacellus Medii Templi. By THOMAS TAPPING, Esq.

Class PULMONIFERA.—Order TERRESTRIAL.—Genus TESTACELLA.

It is my good fortune to add a British species to that interesting family of testaceous pulmoniferous mollusks known as Testacellidæ.

Before describing the species, the subject of this communication, it may be convenient to shortly state the history and generic and special characters of these remarkable animals.

History.

This genus appears to have been first noticed by M. Dugué, in a garden at Dieppe, in 1740; after which it does not seem to have attracted much attention until M. Maugé, some years since, brought home specimens from Teneriffe. The genus has been founded on the species Testacella Haliotoidea of Faure Biguet, described by Cuvier in the 'Annales du Museum,' Vol. v. Cuvier ('Mémoires pour servir a l'Histoire des Mollusques,' ed. 1817, tit. Mem. sur la Dolabelle, sur la Testacelle, &c., &c.) gives the following as the history of the last-mentioned genus:—"La testacelle avoit été indiquée depuis longtemps. D'Argenville et Favanne en avoient donné la figure sous le nom de limace à Coquille—Linnæus et même Gmelin l'avoient neanmoins negligée dans leurs énumérations. J'en fis, le premier, un genre à part dans les tableaux, qui sont à la fin du premier vol. de mon Anatomie

Comparée, le genre et le nom furent adoptés par M. Lamarck (An. sans Vert. p. 96) et par M. Bosc (Hist. Nat. des Coquilles, iii. 240) mais il est singulier que ces deux savans naturalistes n'aient cité que des espèces étrangeres, comme des Ténériffe et des Maldives, tandis qu'il y en a une très abundante dans nos provinces meridionales. C'est ce qu'a fait connoître M. Faure Biguet observateur zélé et habile, residant à Crest, département de la Dróme ('Voyer le Bulletin des Sciences,' No. 61, pour Germinal an X). C'est d'après lui qu'en a parlé Draparnaud dans son 'Tableau des Mollusques de la France,' p. 99: et c'est egalement à sa générosité que je dois le plus grande nombre des individus que j'ai été à même d'examiner; je m'empresse de lui en témoigner ici mon vive reconnoissance."

During the last few years this genus has received great attention from various Englishmen,—from Mr. Baker, of Stamford Hill; from Mr. Lukis, of Guernsey; and particularly from Mr. G. W. Sowerby, of London, to whom zoologists are considerably indebted; the latter gentleman having established a new British species, T. Scutulum. (See Loudon's Mag. Nat. Hist. vi. 45, and vii. 224).

In the collection in the British Museum the family of the Testacellidæ is placed after the Cryptellidæ and before Plectrophorus.

Testacellæ live for the most part under ground, sometimes at the depth of three feet. During fine weather, however, they may be found near and upon the surface. They are rapacious, feeding upon worms, which they swallow head foremost, and gradually draw in as digestion proceeds. (Encylop. Metrop. tit. "Testacella"). As a general rule members of this genus do not hybernate, although during cold weather they are in an almost torpid state. (Loudon's Mag. Nat. Hist. vi. 228).

Generic Characters. (Cuv. iii. 39).

Animal elongated, slug-like, cylindriform, acuminated at each extremity; no cuirass; head distinct, furnished with four intractile tentacles, of which the posterior are the longest and carry the eyes on the tips; foot long and rather indistinct, but extends on each side beyond the body; pulmonary aperture round, and, being dependent on the protecting shell, is situate at the posterior fourth of the animal's length; the orifice being placed entirely backwards, under the right side of the apex of the shell, the anal aperture is very near it; organs of generation united, and showing their orifice near and behind the great right tentacle. From the manner in which the blood is aërated, the auricle and ventricle are placed longitudinally, the latter being anterior.

Shell external, very small, solid, auriform, depressed and slightly spiral at the apex, having a very large and oval aperture; the right lip simple and trenchant, the left convex, sharp and reflected; the shell covers the posterior part of the pulmonary cavity.

The genus has in its form and size much resemblance to a small slug, but is distinguished from it by the cloak, which is very extensible, being placed far back on the body, contained in a very small shell, *and by two grooves which pass from the base of the tentacles to the shell;* its branchial and anal apertures are also near the tail, instead of, as in the slugs, being near the fore part.

De Férussac remarked that the simple gelatinous contractile mantle of the animal, hidden habitually under the shell, is divided into many lobes, capable of enveloping the whole body, by an extraordinary development, when the animal finds it necessary to protect itself from the consequences of too great dryness. The Encyclop. Metrop. tit. "Testacella," probably alluding to the same fact as De Férussac, states that "during draught they are capable of distending the cloak and almost enclosing the *little shell.*" These words, "little shell," must, I imagine, be an error.

Species.

The number of species given by Lamarck is one only; M. Deshayes, in his 'Tables,' makes the number two (both recent); one only is recorded in the last edition of Lamarck; Mr. G. B. Sowerby figures and describes three.

Special Characters.

T. haliotoideus, *Faure Biguet.*

Animal.—Flavidum rufum, vel griseum, maculatum aut immaculatum; tentaculis cylindricis.

Testa.—Ovata, postice acuminata, cornea, crassa, extus rugosa, intus nitida: clavicula (inner lip, *G. B. Sowerby*) alba lata et plana. (Loudon's Mag. Nat. Hist. vii. 229).

The physiology of this species is treated at large by Cuvier, in his Mem. sur la Dolabelle, supra.

Habitat.—South of France and Clifton. (Encyclop. Metrop. tit. "Testacella.") La France, Cuv. par G. Méneville (Mollusques),

p. 13, 'Memoires sur la Dolabelle,' &c., supra. St. Bernard. Montpellier. (Brit. Mus.)

Figures.—This species is figured in Encyclop. Brit. Vol. xx. pl. ccclxxvii.; Cuv. Icon. du Règne Animal. Moll. 5.; Cuv. An. Kingd. 348, ed. 1840; Cuv. 'Memoires sur la Dolabelle,' &c., contains a series of six or eight figures of the physiology of this species; Férussac's 'Histoire,' pl. 8, figs. 5—9; and two views of its shell are given in Sowerby's 'Genera of Shells.'

T. Maugei, *Férussac.*

Animal.—Rufescens, maculis brunneis sparsis ornatis; tentaculis filiformibus; ora corporis aurantia.

Testa.—Ovato-elongata, fulva, exilis, striatula; spira elevata: clavicula angusta. (Fér. Hist. Vol. i. 94, t. viii. figs. 10, 12; Sowerby, Gen. No. 1, figs. 7 to 10; Loudon's Mag. Nat. Hist. 229).

Habitat.—Teneriffe, but has been found in gardens at Bristol by Mr. Miller. Supposed by Mr. Sowerby to have been imported from abroad. (Loud. Mag. Nat. Hist. vi. 45).

Figures.—This species is figured in Encyclop. Metrop. Vol. vii.; Pen. Cyclop. tit. "Testacella;" in Encyclop. Brit. Vol. xv. pl. ccclxvii.; in Sowerby's 'Genera of Shells;' in Férussac's 'Histoire,' p. 8, figs. 10—12; and in Encyclop. of Agriculture, ed. 2, 1121, § 7706.

Habits.—"It feeds upon earth-worms, having the power of elongating its body to such a degree that it is able to follow them in all their subterranean windings. We have observed them attentively, and were rather surprised that an animal generally so extremely sluggish in its motions, after discovering its prey by means of its tentacula, thrusting from its large mouth its white crenulated revolute tongue, should instantly seize upon, with extraordinary rapidity, and firmly retain an earth-worm of much greater size and apparent force than itself, but which by its utmost exertion is unable to escape."—*Pen. Cyclop.* xxiv. 246.

T. Corneus, *M. de Roissy.*

This species is mentioned, but not described, in Loudon's Mag. Nat. Hist. vii. 224.

T. Costatus, *M. de Roissy.*

This species is mentioned, but not described, in Loudon's Mag. Nat. Hist. vii. 224.

T. ——— *From a correspondent of the 'Penny Magazine.'*

The description given in the above work is so general that it is impossible to ascertain therefrom whether the animal described is of a species known or unknown to science. As, however, the notice, such as it is, may be acceptable, it is here given at length.

"The shell slug of which the above is a representation was recently (April, 1835) found in a garden in Gloucestershire. When at its full length, it measured from an inch and a half to two inches. The upper part of its body is of a pale colour, very thickly marked with exceedingly minute black spots, which unite in an irregular manner; and on the back are three dark stripes, which are more distinctly visible in some individuals than in others; and it is altogether much darker when collapsed, the light colour almost entirely disappearing. The under part of the body is of a bright salmon-colour, more vivid in some specimens than in others. The greatest peculiarity in this slug is a small shell, resembling some of the smaller limpet shells, which covers the hinder end of the body: what purpose so small a shell answers, as the slug as not the power of retiring into it, we have not as yet a sufficient acquaintance with its economy to be able to determine. The shell, when separated from the slug, is semi-transparent. While in its natural position, its colour appears nearly the same as that of the back of the slug."

Habitat.—"These slugs are found in gardens in Gloucestershire, about eight or ten inches below the surface of the ground; and they feed on earth-worms. A worm an inch in length, which was placed, in a box covered with glass, with three of these slugs, soon fell a prey to one of them; but a worm three inches in length writhed so violently when seized that it succeeded in getting away. Afterwards it probably became impeded in its movements by the slime of the slugs, for in a few hours they had devoured it, as well as two others of nearly equal length. It was observed that two of the slugs made their repast at the same time at the two extremities of one of the worms. These slugs appear to have been only lately discovered, and very little is at present known of their habits."—*Penny Mag.* iv. 152.

T. Scutulum, *G. B. Sowerby.*

Found best from August to November.

Animal.—Bears a near resemblance to T. haliotoideus, not having the double row of tubercles running from the head to the anterior part of the shell, so conspicuous in T. Maugei.

Testa.—Ovata, antice paulum acuminata, extus plana, clavicula arcuata elevata. (Loudon's Mag. Nat. Hist. vii. 229).

The colour of this species, Mr. Lukis says, is generally of a sickly yellow spotted with brownish specks, mixed with pale orange along the lower parts. This species, Mr. Blair remarks, is of a dirty yellow hue, and T. Maugei differs from it in having its back of a dark brown colour, and in the more cylindrical form of its shell.

Mr. Sowerby thinks that T. Scutulum is identical in species with those sent by Mr. Lukis from Guernsey. (Loudon's Mag. Nat. Hist. vii. 224). Mr. Lukis was acquainted with his species so early as 1801.

French naturalists suppose (as remarked by Mr. Sowerby) the English T. Scutulum, with which they possess almost no practical acquaintance, to be identical with the T. haliotoideus of Faure Biguet and described in Férussac's 'Histoire,' and to which indeed it is most closely allied, but differs in the form of its shell.

Habitat.—Discovered by Mr. Blair at Stamford Hill, London; by Mr. Sowerby in a garden in Kennington Road, Lambeth; at Notting Hill Terrace, London; was not rare in the kitchen and forcing gardens at Kensington, and in other places in the neighbourhood of London; and may, in the opinion of Mr. G. B. Sowerby, be considered as a native of this island.

Habits, &c.—Mr. Blair, of Stamford Hill, near London (Loudon's Mag. Nat. Hist. vi. 43), watched this slug for four years with considerable interest. That gentleman observed that they were generally to be found near the greenhouse, and were seldom seen more than fifty yards from it. He described it to be of a dirty yellow colour, and, when crawling on the surface of the ground, to be about three inches in length, and furnished with a small rudimentary shell at the tail end.

Mr. Blair thus continues his observations:—"In winter it buries itself from one to two feet deep in the earth, and appears on the surface of the ground occasionally with other species; but from the time of my first observing it until the present I have never seen it feeding on any species of vegetable. One morning last spring, on passing a narrow border, which had been previously watered with lime water, for the purpose of destroying slugs, I observed several of the yellow species amongst others dead, and close beside, or near the head of several of them, lay a dead worm. The man who performed the watering informed me that the worms had been disgorged by the slugs. One slug was considerably larger than the others, in which, on cutting it open, I found a large worm. During fine mild weather I observed one on the surface of the ground, firmly fixed to the middle of a large worm, the head of the slug being so buried in it that it appeared to be nearly cut in two: it appears to me, however, that they generally contrive to seize them by one end; otherwise it would be difficult to swallow them whole, as they do; and I think there is no doubt that they generally get hold of them under ground, as the one above mentioned had most likely been dragged to the surface by the worm. I determined, however, to watch its motions, but a heavy rain coming on prevented me, and when the shower ceased they had both disappeared.

"A few days ago one was turned up with a spade, having hold of a worm by the head, with about half an inch of it swallowed. The worm appeared quite alive and strong, and turned the slug over with every twist of its body. The slug kept its hold for some time, but ultimately quitted it, probably in consequence of being disturbed. In digging up the specimens one of them was cut with the spade, in which a small slug was found of the common species."

This species has been observed never to feed on vegetables. It is very tender, and was seldom found by Mr. Blair away from the greenhouse.

Figures.—This species is figured in Loudon's Mag. Nat. Hist. vi. 45, and vii. 224; and in Sowerby's 'Genera of Shells.'

T. Ambiguus, *Férussac.*

Animal.—(Unknown).

Testa.—Depressiuscula, fragilis, subtiliter striata, pallide viridis; spira indistincta; apice occultata; apertura amplissima, simplici.

Mr. Sowerby does not consider T. Ambiguus a species, inasmuch as the shell has every appearance of an internal one.

T. Medii Templi, *Thomas Tapping.*

Animal.—Flavidum rufum, maculatum multis brunneis labeculis, tentaculis quatuor nigris et cylindricis.

Testa.—Fusca, exilis squamea, fragilis, subtiliter striata; apice occultata; apertura amplissima.

This species, which I propose to call T. Medii Templi, from the gardens in which it was discovered, is of a bright yellow, dusted over with minute brown specks which are scarcely visible. It is slug-like, and the individuals are all at least three inches long. Some of the individuals are darker than the others; some have one furrow, and others two furrows, extending from the shell to the anterior part of the body: each has four tentacles, the two posterior carrying the eyes. The animal has the power of so porrecting the lip as to lead a superficial observer to suppose the animal has six tentacles.

The shell is small, of a dark brown colour, much darker than any part of the animal; it is but faintly striated, and scarcely more than a mere scale. In shell this species is more like T. haliotoidea than T. Maugei, the shell of the latter being deeper and better developed.

Owing to the ignorance of naturalists as regards the special distinctions of this interesting family, it may be that some of the species described in this paper are identical with T. Medii Templi; but, so far as descriptions and an inspection of the shells of T. haliotoidea and T. Maugei in the British Museum go, this certainly is a species new to science.

I agree with Mr. Sowerby that this family is very tender, all having been found in sheltered situations and on a warm soil. They are mostly found in the neighbourhood of greenhouses. My observations have led me to the fact that they frequent dry, porous, rich and loamy soils (such as Lambeth, Kennington, Kensington, and the Middle Temple Gardens), and are not to be found in stiff, clayey soil.

Habitat.—The gardens of the Honourable Society of the Middle Temple, London. It is found in one part of the gardens only, under the protection of a south-west wall. It has been known to the intelligent gardener, Joseph Dale, for the last ten years. This is truly a British species, as the garden is not manured with foreign manures, and is in so secluded and surrounded a spot that it cannot have been accidentally or recently introduced.

Habits.—The attention of the gardener was first directed to this species by the fact that on turning up the soil he brought to the surface a slug, with a portion of a worm sticking from out its mouth. Being struck by the singularity, as he considered, of this fact, he deposited the slug in a glass vessel to observe it. On the following day he found the slug had gorged the worm entirely. Since that period he has constantly turned up similar slugs; and on mentioning the fact to me he procured me seven specimens, about the end of December last. They were all found together, and in a semi-torpid state, under the south-west side of a high wall. I am informed that though they for the most part are found under ground, yet occasionally they visit the surface.

I have kept these animals for some weeks in a glass vessel; and though at first they greedily devoured all the worms put with them, yet now, owing, I suppose, to the long confinement, they refuse them. On a future occasion I will communicate further on this subject.

THOMAS TAPPING.

9, Inner Temple Lane, Temple,
March 10, 1856.

Note on Atypus Sulzeri.—I had no intention of writing anything more about the spider; but, seeing a note on Atypus Sulzeri in the 'Zoologist,' I send the following remarks. In a note on Atypus Sulzeri, the writer, Captain Hadfield, supposes this spider to "break through the walls of its residence each time it captures a worm." Now, I mentioned the occurrence of a worm having thrust its head through the nest in a solitary instance, as indicating the kind of food which might occasionally fall to the lot of the spider, and not, as a settled point, to be the only food which she obtains. The worm which had thus obtruded itself was a very slender kind, about 2½ inches in length, and I have no doubt that its head was very pointed, and therefore the creature would find no difficulty in piercing the "closely woven" sides of the silken tube; nor in doing so would it follow that a particle of sand was carried in to "soil the white carpet-like lining;" so that there would be no fragments to "sweep up," nor would any repairs be required, as not a thread, in my opinion, would be broken. I think in one of my notes the probability of the spider having hybernated was suggested, but accompanied with a doubt of that being the case at so early a period. Now, if the closed state of the nests is a proof of the spider having taken up winter quarters, we may hope, at other periods of the year, to discover a permanent opening, I should think, beneath the exposed end of the nest, and not at the lower extremity, or at the sides; for in that case she would have to make a ladder of the long tube to climb up by, which seems to me not a likely mode of procedure. It was not supposed that the history of A. Sulzeri was yet completed, especially as respects its food and mode of capturing it, as to whether she remains quietly at home or quits her nest in search of it; if the latter, then I say the carcases of the slain are left by the way, if not wholly consumed, for most certainly no remains have yet been discovered in the nest. These nests were found in October. Now, if the spider was then hibernating, at the time when many insects were still abundant, does it not prove that its peculiar food was no longer to be found without? and yet have we not seen that she may even, when thus shut in, meet with an occasional supply, for there can be no doubt that a portion of the worm had been eaten? I would just ask, if this long tubular nest is constructed solely as a dwelling for herself and young, forty of whom came forth from one of the broken nests after it was taken to my lodgings. No doubt a "dark lantern" might throw some light upon the question of whether this spider is a night prowler, and likewise in detecting the whereabouts of the males, as also of their kind of food.—*Joshua Brown; Bartonbury, Cirencester, April* 12, 1856.

The Small Spider of the Origanum.—Those who have visited the Hilly Field in autumn and spring, and have been sweeping or gathering the heads of the marjoram

(*Origanum vulgare*), cannot have failed to notice a little spider. On my recent pilgrimage to the shrine of Coleophora conspicuella I collected a few of these spiders, and sent them to Mr. Meade for determination; he pronounces them to be Ergates benigna, *Blackwall* (Theridion benignum, *Walckenaer*). Mr. Meade remarks, "These are all immature specimens in different stages of growth; these spiders construct a nest in the summer at the end of twigs of heath or juniper, or (as you find) Origanum, and there the young are bred, and seem to remain all the winter."—*H. T. Stainton; April* 5, 1856.—[*Intelligencer, April* 12].

Note on Argynnis Lathonia and Pieris Daplidice. — Some time since a doubt was raised by Mr. Scott as to the occurrence of Lathonia in England. I then wrote to him, giving the instances which had come under my own notice of its occurrence. I also sent him letters from Mr. L. Brock, Mr. E. Smith, Mr. Garrett and Mr. Seaman, respecting the capture of the insect. As, however, I found that Mr. Scott's doubts referred only to some particular specimens, I did not forward the letters to the 'Zoologist' as I had intended; and now I have unfortunately mislaid them, with the exception of Mr. Brock's. Mr. Newman (Zool. 5071) declares that the occurrence of Lathonia and Daplidice is limited in each species to about six cases, and that he looks with great suspicion on any cabinet in which these insects are included. Of Daplidice I took one on Holme Fen in August, 1852, as recorded in the 'Zoologist.' That I saw another on the previous day I have not the slightest doubt, though I then considered it as a late specimen of the female Cardamines, and did not take it. It had rather a heavy flight. My second specimen was taken by Mr. E. Smith, who has also taken two or three others of the same species in Worcestershire. Mr. E. Smith sells insects, but, as I have known him for some years, I may state that I have perfect confidence in what he tells me. His father, a most respectable man, who has collected for many years, and has a large collection of unquestionably British insects, assures me that he saw the insect when alive. Dover and Cambridgeshire are the places where Daplidice is said to have occurred; but in Mr. Kirby's Life it is stated, in a letter from Mr. Dale, that "Mr. Millard took Daplidice at Tewkesbury, where it has been found in great plenty." This is good evidence, at all events, of the possibility of its being found near Worcestershire. Of Lathonia I have two specimens, taken by my friend Mr. L. Brock, a medical gentleman in large practice in Colchester. One was taken by him in September, 1847, near Birch; and the other, a worn specimen, in the month of May previous, near Berechurch. I enclose his letter. I have a third specimen, taken by Mr. E. Smith in Worcestershire. I have also four specimens which I procured, many years ago, from the late Mr. Seaman, of Ipswich, who assured me that he had taken them himself, on a heath near that town, within a very short time; they were then unset, and I gave him two shillings for each of them. I wrote to his son, who also collects, to inquire whether he remembered his father taking the insect, and his reply is quite satisfactory. Mr. Seaman, I am aware, sold many foreign insects; but, though I should doubt the authenticity of a specimen, in a dealer's hand, which he had purchased, I see no objection to taking the word of a respectable dealer as soon as that of an indifferent person for insects that he has himself taken. Being, however, in Ipswich not long since, I saw, in the collection of Mr. Garrett, who is engaged in business in Ipswich, two or three Lathonias, which he told me he had taken, some years before, near the town. I regret that I have mislaid his letter, but there can be no doubt about it. Perhaps Mr. Newman will specify the other instances, which he believes to be the only ones, in which Lathonia and Daplidice have unquestionably occurred; and will also tell us what insects an entomologist who is jealous of the honour of his cabinet must avoid. Chrysidiformis has turned up: why may not Virgaureæ or Chryseis, or any other reputed British insect? For many years the only known specimen of L. Muscerda was one found in a ditch by Mr. Sparshall; yet this very local insect is found in one spot on Horning Fen in considerable abundance, and, I believe, nowhere else. Would it not be more charitable in Mr. Newman to conclude that insects may exist, though he is not fortunate enough to meet with them, than to suspect multitudes of collectors of wilfully stating what is not the truth to enhance the value of their cabinets? Are there no localities of two or three hundred acres, such as Horning Fen, which have been hitherto overlooked? I confess I prefer the evidence of one respectable entomologist, who states that he has taken a scarce insect, to that of all the authorities of the Entomological Society, who can only say that they have never met with it. I cannot conceive anything more likely to deter a young collector from mentioning the capture of any insect hitherto disputed than the paragraph of Mr. Newman's. What, however, must young collectors think, after reading the passage in question, when they see, on the very next page, Lathonias, Daplidices, and other rare insects which the most latitudinarian entomologist would hesitate to acknowledge as British, advertised in quantity under the sanction of the 'Zoologist?' Since writing the above, I observe (Zool. 4650) a notice of the capture of six Lathonias by the Rev. W. Hawker. Does Mr. Newman allude to these, and are all others spurious?—*E. C. Buxton; Myddleton Hall, Warrington, April*, 16, 1856.

Parnassius Apollo at Ealing.—I beg to inform you that I yesterday met a gentleman who assured me that he saw Parnassius Apollo at Hanwell about six years ago. He chased it, but without success. This gentleman's veracity may be relied on. At a time when Apollo's claim to be a British insect is under discussion every scrap of information is of value.—*Henry Austin; Little Ealing, April* 14, 1856.

Chrysophanus Dispar in Staffordshire.—Seeing in your 'Manual,' it is stated at page 11, that the large copper is only to be obtained in the fens, I beg to say, that a few days ago a gentleman brought to show me a male and female of that species, which he had captured last year in Staffordshire: this is a new locality to me, and I suppose is so to most entomologists: I quite expect this insect will be diligently looked after this season in this new locality.—*Richard Weaver; 25, Pershore Street, Birmingham, April* 9, 1856.—[*Intelligencer, April* 19.]

Recent Entomological Captures in the Neighbourhood of Witney, Oxon.—On the 11th of March a moth, either the long-winged pearl (*Margaritia lancealis*), a variety of that insect, or a closely allied species, was found reposing on the trunk of an oak in Cokethorpe Park. The pearls, as a family, usually make their *début* in June or July. The appearance therefore of one of them at this early period, even if it be not a new species, seems worthy of note. Seven more specimens have since been obtained in this locality. On the 17th I took the satellite (*Glea satellitia*) at sugar in Cokethorpe Wood. Nothing is said by Wood, or by Humphrey and Westwood, about a spring appearance of this insect. Its appearance in the autumn is well known, and I can only attribute the fact of its reappearance at this season to its having hybernated. It came in great profusion. I secured a few of the freshest-looking specimens, but even they were a good deal worn. On the 19th I captured a specimen of the large sword-grass (*Calocampa exoleta*), also at sugar, in Cokethorpe Wood. Another specimen was caught by Master Edward Appleby, at sugar, the same evening, in a neighbouring coppice. I obtained another on the 24th, since which date it has not been seen. Coupling the fact of the very late appearance of this insect in the autumn (I found it last autumn on the 6th of November) with its very early appearance in the spring, or indeed before that season—according to Francis Moore, physician, and other authorities equally to be relied on—has commenced, it may, I think, be reasonably enough concluded that this is also one of the hybernating species. Our oak-beauty season is just over: it opened with a couple of males reposing on trunks of oaks in Cokethorpe Park, on the 10th ult., and closed with a couple of females on the 4th inst.; from twenty-five to thirty specimens of both sexes having been observed between those dates. I had one emerge as early as the 14th of February, from a chrysalis which had been kept in doors during the winter. The small brindled beauty (*Biston Hispidaria*) made its appearance on the 23rd of February, since which date, up to the 4th inst., when the last was seen, a goodly number of males in the aggregate was observed resting upon the trunks of oaks. I have only met with two females throughout the season. One reason why so few females in comparison with males were discovered may be that the former are destitute of wings, which renders them much less conspicuous objects than the latter. This cannot, however, I think, be the only reason; for I searched too carefully the trunks of all the trees frequented by the males to have overlooked any females that might have been there. The females of many Lepidopterous insects have a wonderful knack of "making themselves scarce;" thus, although the males of Bupalus Piniarius may be found in great abundance in this neighbourhood, I have never met with a single female; and this is also the case with Angerona Prunaria: the males I have often found, the females never. On the 2nd inst. Xylina lambda was caught at sugar, and on the 10th Orthosia munda. Several specimens of the latter have been obtained, some at sugar, some among sallows, and some from chrysalides obtained in the autumn.—*S. Stone; April*, 1856.

Cloantha conspicillaris.—I have this morning bred a specimen of this insect from pupæ collected near here; this is the eighth specimen I have bred from pupæ found in Worcestershire.—*E. Smith; Turkey Street, Worcester, April* 14, 1856.—[*Intelligencer, April* 19.]

Noctua leucographa.—We have taken three males of this species, and a pair of Munda at sallows since Friday last.—*Bernard Smith; Marlow, April* 8, 1856.—[*Id., April* 12.]

Dasycampa rubiginea.—I have taken one specimen of this pretty species myself, and seen three others taken by a collector who is staying here: therefore those in whose localities it occurs would do well to look for it now: I took mine in a gas street-lamp, but sallow is, I think, the best place to try for it.—*J. J. Reading;* 42, *Gibbons Street, Plymouth, April* 8, 1856.—[*Id., April* 12.]

Aleucis pictaria.—On the 6th instant I took this species on the Dartford Heath Fence, where I at the same time found Gracilaria elongella and stigmatella.—*H. J. Harding.*—[*Id., April* 12.]

Ennomos Alniaria at Margate, Kent.—I have much pleasure in communicating the occurrence of another specimen of this rare Geometra at Margate. A fine female specimen was taken at rest on a post near the sea at Margate, on the 27th of September last, by Mr. William Aldridge, of Knightsbridge.—*A. F. Sheppard; Rutland House, Kingston-on-Thames, April* 6, 1856.

Coleophora alcyonipennella.—Few persons take this insect in the perfect state, and as I imagine it has yet to find its way into most collections, now is the time to look for the larva: it makes blotches on the leaves, sometimes as many as ten on a leaf of Centaurea nigra (black knapweed): these are very pale at first, but become browner as they grow old. The larva is generally attached to the under side. I have never found beyond three on a plant, and most generally only one. The larva is of a pale yellow colour, and the three first segments which it protrudes from its case are the only ones which have any markings. The segment next the head (which last, by the way, is brown) has a large, somewhat lobed, brown patch, darkest posteriorly. The next segment has four brown spots, forming a crescent: the central two of these are triangular. The third segment has but two, also brown spots, placed one on each side of the back. In addition to these, each of the three segments has also a deep brown spot placed just above the legs, and the legs themselves have three broad brown bands. The case is nearly straight, blackish, and with two pale longitudinal lines on the under side. It is not uncommon here.—*John Scott; South Stockton, Stockton-on-Tees, April* 7, 1856.—[*Intelligencer, April* 19.]

Ornix Loganella.—Our readers will be glad to hear that this species has been bred by Mr. Wilkinson, of Scarborough, from the leaves of the mountain ash.—[*Id., April* 5.]

Lithocolletis irradiella.—Several specimens of this interesting species have been bred from oak leaves by Mr. Wilkinson, of Scarborough. The same gentleman is also now rearing L. Amyotella.—[*Id., April* 5.]

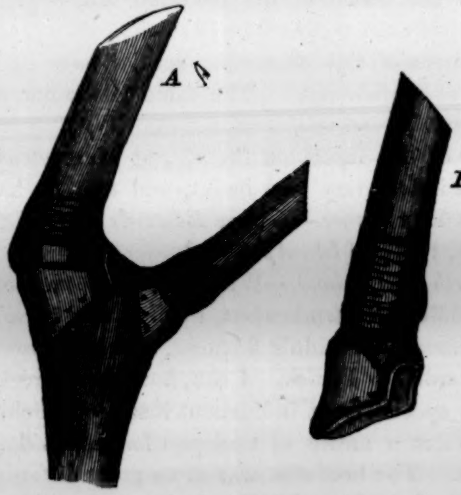
Bombus soroensis.—I caught a female of this insect on the 5th, at Hampstead. I showed it to Mr. Smith, who says that it is a very rare insect, and that he has only once met with it in the whole of his long career.—*George Edwards;* 21, *Wellington Terrace, St. John's Wood, April* 14, 1856.—[*Id., April* 19.]

Capture of Nitidula flexuosa in the North of England.—When hunting insects on the sea-coast near South Shields, in the middle of September last, I picked up a horse's hoof, out of which I took thirty-one specimens of Nitidula flexuosa, *Fab.*, an insect which has not, to my knowledge, been recorded as British. I can, however, scarcely bring myself to think that this conspicuous species is an indigenous insect. Shields is a large shipping port, and its vessels present a means of transport for insects that find a pabulum in dried animal substances. The hoof also was at no great distance from a large heap of slag and other rubbish, the refuse of a chemical factory.—*Thos. John Bold; Angas' Court, Bigg Market, Newcastle-on-Tyne, April* 15, 1856.

Capture of Alphitobius picipes at South Shields.—On finding Nitidula flexuosa I was led to examine the heap of chemical refuse, in hopes of confirming or refuting my suspicions of its being an imported species. Although not successful in doing this, still my labour was in some manner repaid by finding Alphitobius picipes, *Steph.*, in plenty. They were clinging to the under side of large pieces of slag which were lying on the sand, and were so abundant that I might have taken scores had I been so inclined.—*Id.*

Query as to Helophorus dorsalis, Marsh.—Can any one explain the nature of the brilliant red spots which seem to shine *through* the elytra of this pretty little beetle when recently captured? If they be caused by mites, it would be a curious fact tha they should be peculiar to this species only of the genus, as they do not appear on an of the others, as far as I am aware. Stephens, in his 'Manual' (in the 'Illustration they pass unnoticed), speaks of them as if markings of the same nature as the dusk patches on the other parts of the elytra; and such they appeared to me when I captured a few specimens in February last, in Somersetshire, and only remarked th beauty of the species without examining it very minutely. But the red colour havin almost faded away since, I now observed that it must have arisen from somethin attached to or actually in the body itself. I am surprised that Mr. Clark does no notice this peculiarity in his description (Zool. 5050), forming, as it does, so eas a guide to the recognition of the insect at first sight; but it may be peculiar to som individuals only. It has, however, been also seen, in this or one of the allied specie (I am not sure which), on specimens taken on the banks of the Dodder, Co. Dublin I therefore think the circumstance may fairly be deemed worthy of investigation.— *A. R. Hogan; Charlton, Dundrum, near Dublin, April*, 1856.

Origin of the Name Horse Chestnut.—Of late there has been a discussion in th 'Zoologist' respecting the origin of th name horse-chestnut. As yet it strik me no solution of the difficulty has bee given. I may be wrong, but from child I have believed the name hors chestnut to have arisen from the mo marvellous similitude of a horse's ho and nails therein, appearing at eve joint of the young wood; and eve when severed with a knife the frog the horse's foot also appears. M Farr encloses a rough sketch, figs. and B, which, I think, speaks for itsel I enclose also a piece of the hors chestnut wood.—*J. Farr; Gillingha Rectory, Beccles, April* 12, 1856.



[I am surprised that no correspondent has previously suggested this most obviou solution. The cicatrix formed at the point to which the fallen leaf has been attache constitutes the hoof. Since receiving the Rev. Mr. Farr's interesting communicatio I find that the fact is perfectly familiar to residents in the country, and that we naturalists are the only *ignorami.—Edward Newman.*]

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